The AML Management Unit

Installation Guide

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Introduction

Overview

This manual contains information and instructions necessary for the proper installation of the Archive Management Unit (AMU). The topics discussed in this section are:

- Overview
- Intended Audience
- Organization
- Associated Documents
- Explanation of Symbols and Notes
- Assistance

Intended Audience

This guide is intended for installers, operators, trained customer specialists, and maintenance personnel of the service partner who interact with the AML family of libraries.

Organization

This publication contains chapters detailing the installation of the AMU. The chapters include:

Chapter 1	*Introduction* - Describes the overview, intended audience, organization, associated documents, explanation of symbols and notes, and how to obtain additional assistance.
Chapter 2	*Description* - Describes general information about the AMU installation.
Chapter 3	*Safety* - Describes the hazard symbols, messages and safety procedures for the correct installation of the AMU.
Chapter 4	*Installation* - Describes the installation of the AMU software onto the AMU computer platform.
Chapter 5	*Adapter Installation* - Describes the installation of the adapter cards into the AMU computer platform.
Chapter 6	*Operating System Installation* - Describes the installation of the operating system on the AMU computer platform.

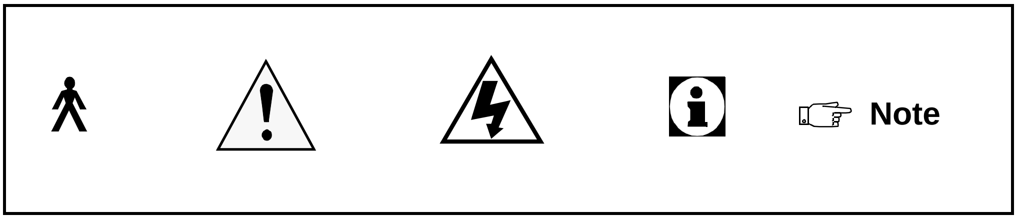
Chapter 7	*Software Installation* - Describes the installation of the application software on the AMU computer platform.
Chapter 8	*Software Configuration* - Describes the configuration of the loaded software.
Appendix A	*Definitions* - Describes the VTAM and HCC definitions for the AMU AMS.

Associated Documents

DOC E00 005	AMU Reference Guide
DOC B00 001	AML/2 Operator Guide
DOC C00 001	AML/E Operator Guide
DOC D00 003	AML/J Operator Guide
600605	AML/S Operator Guide
DOC B00 019	AML/2 Maintenance Guide
DOC C00 022	AML/E Maintenance Guide
DOC D00 010	AML/J Maintenance Guide
600604	AML/S Maintenance Guide
DOC F00 010	DAS Administration Guide

Explanation of Symbols and Notes

The following symbols and highlighted passages note important information.



Detailed explanations of these symbols are found in *Hazard Alert Messages* on page 3-3.

<1> + <2>	Press these keys simultaneously.
Italics	Headline, e. g., Chapter 3, *Safety* File name, e. g., *AMUINST.EXE*

Bold	Terms appearing on the AMU operating console Special Term, e. g., **Manage Users** Operating element/key on the operating panel or the keyboard of the AMU processor
`Courier`	Command line appearing in the OS/2 input window, e. g., `[C:\]cd amu` Switch position, e. g., `AUTO`

Assistance

Warning

Operation of the AML family of libraries by untrained personnel can lead to dangerous situations. The consequence could be severe or fatal injury caused by moving parts or contact with electrical connections.

Warning

Some work and adaptations can only be performed with the appropriate qualifications and training. Therefore, introductory training by ADIC/GRAU is recommended for all who work with the AML family of libraries.

Most importantly, read *Chapter 3 - Safety* before beginning work with the equipment.

If problems cannot be solved with the aid of this document or recommended training is desired, contact the ADIC/GRAU Technical Assistance Center (ATAC).

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2

Description

Overview

The Archive Management Unit Installation Guide provides information to setup, install, load, and configure all necessary hardware and software to ensure a successful AMU operation.

The intent of this guide is to offer a step-by-step installation description. Controllers, adapter cards, and software installation procedures could change with newer releases and this guide may not always provide all of the necessary details for a particular hardware and software installation. Nevertheless, this guide does provide sufficient details, notes, and information for all hardware and software installation and configuration.

General Information

The AMU Installation Guide describes an initial installation of all possible AMU hardware configurations. Adapter card and software installation prerequisites are described once at the beginning of the chapters. The prerequisite information should be followed for any additional adapter cards or software installations, prior to selecting the section within the chapter explaining the hardware/software installation process.

Warning

This guide assumes that prior training from ADIC/GRAU has been received. The operation of AML systems by unqualified personnel may lead to dangerous situations. The result may be severe or deadly injuries by mechanical and electrical components. Therefore, an introductory training session is offered by ADIC/GRAU, and is recommended for all who operate the AML family of libraries.

☞ **Note**

Read and understand the safety sections in all ADIC/GRAU documentation prior to working with any AML family of libraries.

3

Safety

Overview

☞ Note
In addition to the safety instructions in this guide, local and professional safety rules apply.

Avoid dangerous situations while operating the AML family of libraries by following all safety procedures and operating the equipment carefully.

It is mandatory that operators of the AML family of libraries understand and comply with all instructions contained in this guide and other related documentation.

Hazard Alert Messages

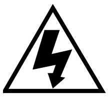
ADIC/GRAU classifies hazards in several categories. Table 3-1 shows the relationship of the symbols, signal words, actual hazards, and possible consequences.

Table 3-1 Hazard Alert Messages

Symbol	Damage to ...	Signal Word	Definition	Consequence
🚶	**Persons**	**DANGER**	Imminent hazardous situation	Death or serious injury
		WARNING	Potential hazardous situation	Possible death or serious injury
		CAUTION	Less hazardous situation	Possible minor or moderate injury
⚡	**Persons**		Imminent hazardous electrical situation	Death or serious injury
⚠	**Material**	**Attention**	Potential damaging situation	Possibly damage to the product or environment
☞		**Note**	Tips for operators	No hazardous or damaging consequences
ℹ			Important or useful information	No hazardous or damaging consequences

Specially emphasized paragraphs in this guide warn of danger or draw attention to important information. These paragraphs and their associated symbols include:

When used with the signal words, Danger or Warning, this symbol warns of a dangerous situation that threatens personnel with serious injury or death.
When used with the signal word Caution, the symbol warns of a hazardous situation that could result in minor injury.



The danger exists of a fatal electric shock. At places designated with this symbol, electrical current can be present even after an Emergency Stop or after switching off the main switch. Before starting any work, always confirm that all electrical connections are free of electrical current.

⚠ Attention

This symbol means that specific regulations, rules, notices, and working procedures must be observed. Ignoring this symbol can lead to equipment damage, destruction or to other property damage.

☞ Note

This symbol draws attention to user tips. No dangerous or damaging consequences for personnel or property are associated with this symbol.

This symbol indicates useful information. No dangerous or damaging consequences for personnel or property are associated with this symbol.

Area of Application

☞ Note

Other manufacturer documentation is an integral part of the AML documentation set.

This information applies to the entire family of AML libraries. Further safety instructions for components used in the equipment are not invalidated by these instructions.

4

Installation

Overview

The AMU consists of both hardware and software. Any reference to the term AMU may refer either to the AMU controller or to the AMU Archive Management Software (AMS) programs. The AMU is considered an integrated part of the ADIC/GRAU AML hardware and software configuration.

All AMU controllers are previously configured and customized for each individual customer setup. Hardware and software configurations depend on the AMU controller, AML type, host connection, and media storage segment configurations.

Installation

The following information describes the hardware and software installation and configuration. The information is intended to familiarize the novice user with the steps to install or reinstall the necessary AMU configurations. Each chapter provides an overview of the installation process. Individual sections first summarize and then detail the installation and configuration procedures.

Different procedures to install software and hardware in the AMU controller may be performed and the following steps provide guidelines to successfully install and configure the AMU controller. The installation may be performed from either diskette or CD-ROM. Major differences are noted in the particular installation and configuration section.

Preparation

Various AMU controllers are currently supported. System configurations include the Micro Channel, Micro Channel and PCI, the ISA, or ISA and PCI. The configuration depends on the AML type and network connection.

AMU hardware configurations include:

- 80486 Processor or higher (recommended Pentium 133 MHz)
- PC System Bus
    - Micro Channel
    - ♠ Micro Channel with PCI
    - ♠ ISA
    - ♠ ISA with PCI

- Harddisk 500MB, or greater (recommended 2 harddisks with 1GB)
- RAM 16MB or more (recommended 32MB)
- 14/15-inch monitor
- Keyboard (German, English or French)
- Mouse
- Token-Ring, Ethernet, or FDDI network adapter card
- 3278/79 coaxial (DFT) adapter card
- Serial interface expansion card
- PMAC axis controller card (AML/J only)

Additional configuration options consist of:

- Printer
- Modem
- Dual AMU controller (without monitor, mouse and keyboard), T-switch and Automatic or Manual Data Switch (ADS) for controller selection (AML/E and AML/2 configurations only).

AMU software configurations include:

- OS/2 Warp and OS/2 Warp Connect
- IBM Data Base 2 for OS/2
- Communications Manager/2
- TCP/IP for OS/2 (included in Warp Connect)
- LAPS (LAN Adapter and Protocol Support)
- AMU AMS

Additional software configurations contain:

- Distributed Console Access Facility
- KopyKat for OS/2 (instead of DCAF)

AMU Controller Setup

Since the AMU controllers support the **Micro Channel**, Micro Channel and PCI, the ISA, ISA and PCI system bus architecture, different system setup and preparations are necessary to install or remove adapter cards in the controller.

☞ **Note**

If the reference and diagnostic diskettes are available on the hard disk system partition only, backup the system partition to diskette as described in *Micro Channel System Partition Information* on page 4-10 prior to continuing with the installation procedure.

The **Micro Channel and Micro Channel/PCI** system bus controllers provide system software to setup, configure and test the controller configuration. These utilities are located on a set of reference and diagnostic diskettes. The utilities may or may not be stored in the system partition of the controller's hard disk. Micro Channel controllers need to add installed adapter configurations to the system configuration. Adapter option diskettes describe the adapter to the system to determine the correct configuration of IRQ lines and memory address ranges.

ISA and ISA/PCI system bus controllers do not require system partitions for controller configuration and diagnostic purposes. ISA and ISA/PCI systems may set jumpers or micro-switches on the adapter card, or use a configuration utility program to download selected configurations to the adapter card, to select adapter IRQ lines and I/O ports. The installers should verify that the IRQ lines and memory ranges, and all other settings are correct and do not interfere with other adapter settings. Utility diskettes provided with the adapter may need to be loaded to configure and test the adapter.

The adapter installation section in this document presents the necessary details for a successful installation. Additional information or problem determination procedures are available in the accompanying adapter card documentation.

This AMU Installation Guide assumes the following:

- The controller and monitor are connected
- The hard disk and optional CD-ROM drive are operational
- All necessary software is available
    - The reference and diagnostic diskettes are available for a Micro Channel controller

Prepare the AMU controller PC with the following steps:

Step 1 Install all necessary adapter cards

- If applicable, configure Micro Channel controllers with system programs

Step 2 Load OS/2 operating system

- Setup Desktop
- If applicable, load Micro Channel system programs

Step 3 Load required software packages

- Load database software
- Load network software (LAPS, TCP/IP, Communications Manager/2)
- Load remote access and control software (KopyKat or DCAF)
- Load AMU AMS software
- Install Dual AMU controller

Step 4 Configure required software packages

- Configure User profile Management
- Configure network software
- Configure remote access software
- Configure AMU AMS software
- Configure Dual AMU controller

Micro Channel System Program Information

Micro Channel system programs configure and test the controller hardware configuration. The system programs consist of reference and diagnostic programs and should be stored on diskette and the controller hard disk.

System programs are invoked either manually by booting the controller with the reference diskette or automatically whenever the controller determines a hardware configuration change or hardware configuration error. The automatic invocation either loads the system programs from the hard disk system partition or prompts for the reference diskette.

To invoke the system program, boot the controller using the following procedure:

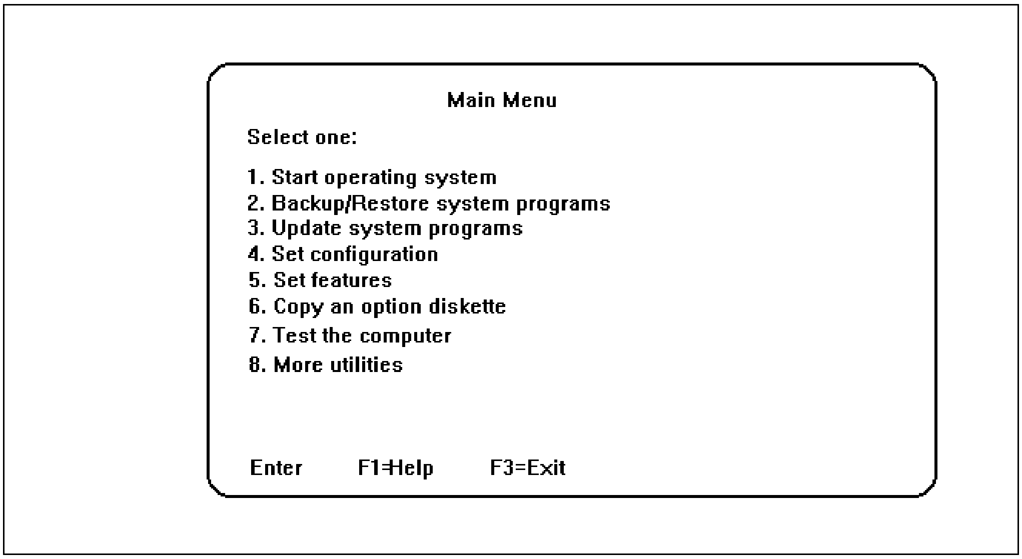
Step 1 If the system programs reside on diskettes, boot the controller with the reference diskette in drive A:.

— or —

If the system programs reside on the hard disk, do the following:

- If IBM ABIOS is installed, press <Ctrl+Alt + Insert> when the cursor appears in the right upper corner of the display.
- If you have IBM SurePath BIOS installed, press F1 when the BIOS boot window is displayed.

After the system programs boot, the Main Menu is displayed to provide selections for hardware *configuration options and test procedures. See Figure 4-1 on page 4-7.*



Main Menu

Select one:

1. Start operating system
2. Backup/Restore system programs
3. Update system programs
4. Set configuration
5. Set features
6. Copy an option diskette
7. Test the computer
8. More utilities

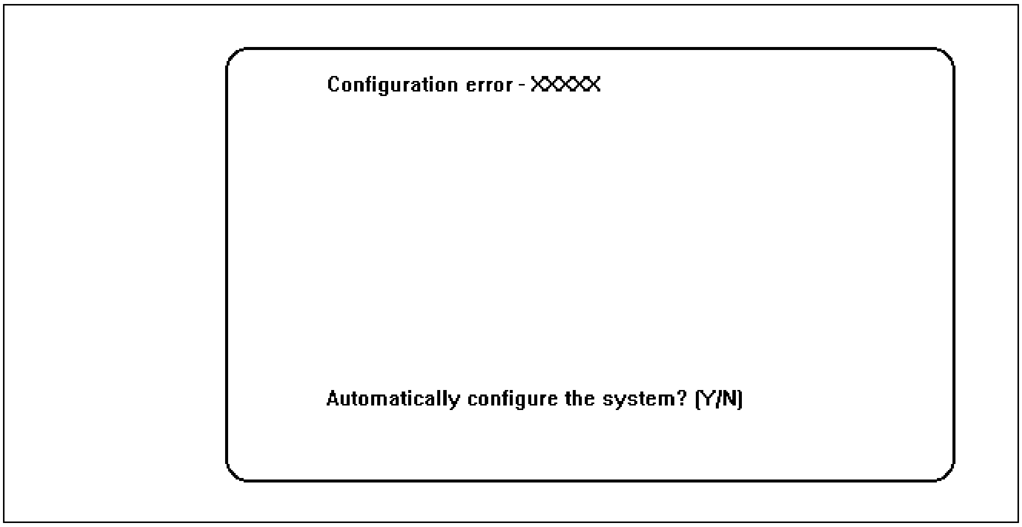
Figure 4-1 Main Menu

From the **Main Menu** panel, select:

- Option 2 to backup or restore the hard disk system partition to or from diskettes
- Option 4 to set configuration information for added or removed adapters
- Option 6 to copy an option diskette for a newly installed adapter
- Option 7 to test the computer in case of error conditions during normal operation

After selecting an option, press **ENTER** to proceed, or **F3** to exit and return to the previous menu.

In order to backup or restore the hard disk system partition, select option 2. This selection displays the **Backup/Restore System Programs** panel. See Figure 4-2 on page 4-8.



Configuration error - XXXXX

Automatically configure the system? [Y/N]

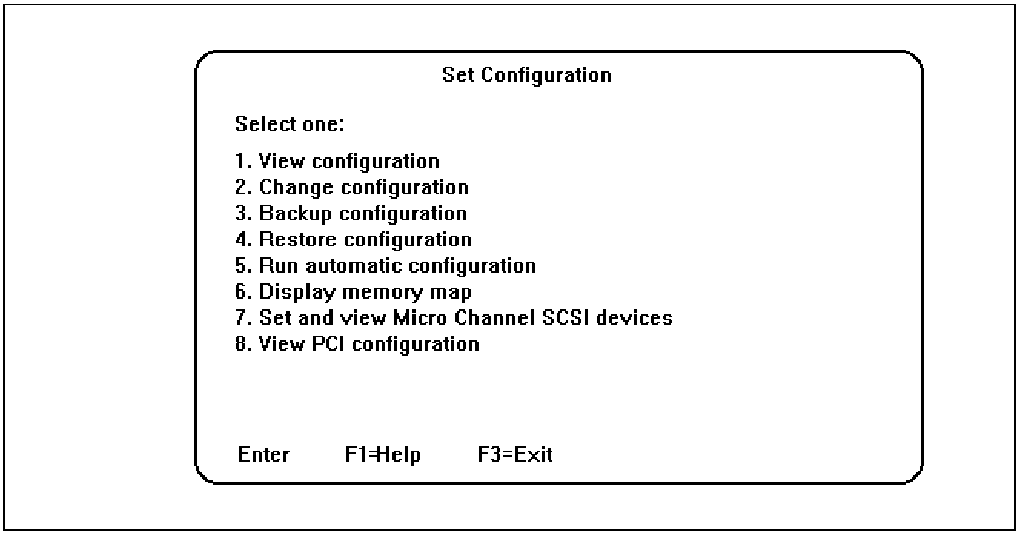
Figure 4-2 Backup/Restore System Programs

Select:

- Option 1 to make backup copies of the system diskettes
- Option 2 to backup the system partition from hard disk to diskettes
- Option 3 to restore the system partition from diskettes to hard disk

After selecting an option, press **ENTER** to proceed or **F3** to exit and return to the previous menu.

In order to change or view the hardware configuration, select option 4 from the **Main Menu** panel. This selection displays the **Set Configuration** panel. See Figure 4-3 on page 4-9.



Set Configuration

Select one:

1. View configuration
2. Change configuration
3. Backup configuration
4. Restore configuration
5. Run automatic configuration
6. Display memory map
7. Set and view Micro Channel SCSI devices
8. View PCI configuration

Figure 4-3 Set configuration

Select:

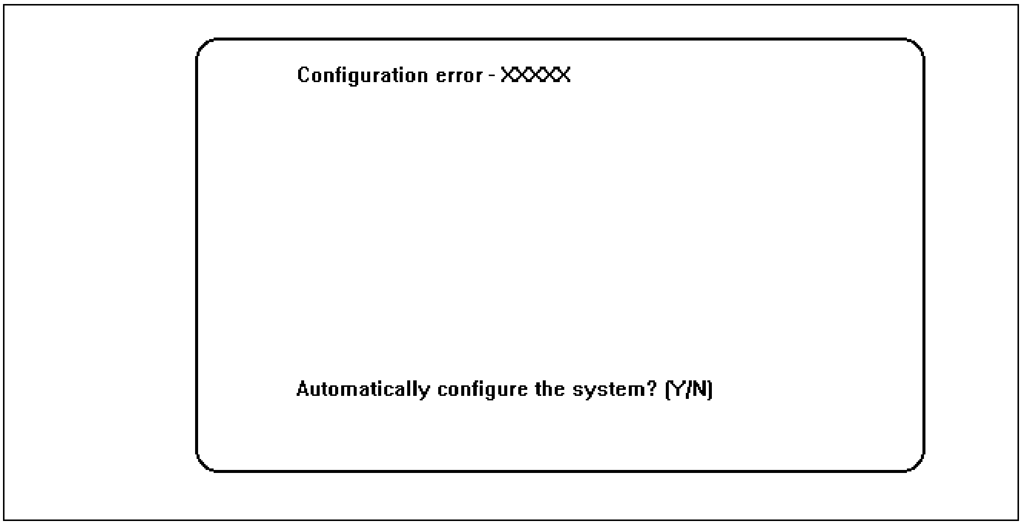
- Option 1 to view the current configuration
- Option 2 to view and possibly change the configuration
- Option 3 to backup the configuration
- Option 4 to restore to a previously backed up configuration
- Option 5 to run an automatic configuration of all installed hardware options
- Option 6 to display a memory map for system and adapter card configurations
- Option 7 to set and view SCSI device configurations (hard disk or CD-ROM adapter)
- Option 8 to view PCI device configurations (video adapter, hard disk or CD-ROM adapter)

Note

An automatic configuration overrides previously set configuration values. If necessary, select option 2 to change configuration values according to network requirements, or adapter card documentation requirements.

After selecting an option, press **ENTER** to proceed or **F3** to exit and return to the previous menu.

Whenever the hardware configuration changed, the controller displays a configuration error on boot up and starts the system program automatically. See Figure 4-4 on page 4-10. Use caution when selecting an automatic configuration. An automatic configuration overrides previous adapter card configuration values.



Configuration error - XXXXX

Automatically configure the system? (Y/N)

Figure 4-4 Configuration error

Press:

- **Y** to automatically configure the adapter
- **N** to prevent an automatic configuration

It is recommended **NOT** to run an automatic configuration from this panel. A newly installed adapter may not be known to the system and may need the option diskette copied to provide adapter description information.

If an adapter has been removed, the automatic configuration may be run. The automatic configuration overwrites previously set configuration values.

For adapter installations, type **N** and then select option 6 from the **Main Menu** panel to copy an option diskette. Select option 5 from the **Set configuration** menu to configure the adapter. Select option 2 to view and, if necessary, change the configuration for installed adapter cards or network connections.

Micro Channel System Partition Information

The AMU controller requires a primary hard disk partition. The partition is assigned **drive C:.** This partition is the complete hard disk size. Micro Channel controllers are an exception and require 6 MB of space for a system partition.

☞ Note

A system partition is not necessary if diskettes are available. The diskettes should be backed up. It is more convenient and faster to have the reference and diagnostic software available on hard disk.

In previously configured AMU controllers, the system partition is present on the hard disk and a copy of the system software is available on diskettes. If a hard disk system partition is not defined or the hard disk fails, the reference and diagnostic utility programs may be loaded from the diskettes. If diskettes are not available, the system partition should be backed up to diskette as a precaution against hard disk failure.

The hard disk system partition is created with the *FDISK* utility during the OS/2 WARP software installation procedure. Steps involving the creation of a system partition required for system software are not necessary in ISA and ISA/PCI controllers, but are highly recommended in Micro Channel and Micro Channel/PCI controllers.

☞ Note

FDISK may be invoked from a DOS or OS/2 prompt. Care must be taken when partitioning the hard disk because data is lost in selected partitions. *FDISK* should not be used to partition active partitions because the installed software in such partition is lost.

ISA and PCI System Information

ISA AMU controllers do not resolve IRQ and I/O space addresses and do require careful attention to hardware configuration. An ISA AMU controller provides system utility software on diskettes to assist with hardware configurations. These bootable diskettes provide system utility menus to view and change system configurations.

ISA/PCI AMU controllers provide auto-select IRQ configurations for installed PCI adapters. Although all IRQ lines may be automatically configured for the PCI system bus, adapter cards configured in the ISA system bus are not automatically recognized and IRQ conflicts may still occur. To prevent such conflicts, the auto-select configuration may be disabled and an IRQ selection may be entered from the system configuration menu, which can be invoked with the displayed key combination when the controller boots.

It is recommended to either boot the system software or to display the system configuration prior to adapter card installations, to determine currently configured I/O address space and IRQs. Since the adapter card documentation indicates the default IRQ and I/O address space, conflicts can be easily resolved by configuring the adapter with jumper settings, switch settings or supplied software.

The Dell, SNI and COMPUDYNE controllers provide an advanced configuration menu, which displays configured IRQs. IRQs 5, 9, 10, 11, and 15 are available for use with installed adapter cards. IRQ 9 is generally used for VGA controller cards. IRQ 13 is generally used for math co-processors. IRQ 15 is generally used for a secondary IDE controller. Refer to *Chapter 5 - Adapter Installation* for IRQ, base I/O address and memory address assignments.

The current Dell controller configuration is listed in Table 4-1.

Table 4-1 Dell (ISA) AMU Controller Configuration

Device	IRQ	I/O port	DMA	Memory
System Timer Controller	0	40h-5Fh		
Keyboard Controller	1	60h-60h 64h-64h		
Interrupt Controller	2	20h-3Fh A0h-BFh		
Serial Port	3	2F8h-2FFh		
Serial Port	4	3F8h-3FFh		
	5			
Floppy Controller	6	3F2h-3F5h 3F7h-3F7h	2	
Parallel Port	7	378h-37Bh		
Real Time Clock Controller	8	70h-7Fh		
	9			
	10			
	11			
Mouse Controller	12			
System Peripheral	13	F0h-FFh		
Primary IDE Controller	14	1F0h-1F7h 3F6h-3F6h		
	15			
RAM Controller		62h-63h 65h-6Fh E0h-EFh		0h-9FFFFh 100000h-FFFFFFh FFFC0000h-FFFFFFFFh F0000h-FFFFFh
DMA Controller		80h-9Fh 0h-1Fh C0h-DFh	4	

Table 4-1 Dell (ISA) AMU Controller Configuration (Continued)

Device	IRQ	I/O port	DMA	Memory
System Peripheral		61h-61h		
VGA Controller		102h-102h 3B4h-3B5h 3BAh-3BAh 3C0h-3CCh 3CEh-3CFh 3D4h-3D5h 3DAh-3DAh 46E8h-46E8h		A0000h-BFFFFh C0000h-C7FFFh

The current SNI controller configuration is listed in Table 4-2.

Table 4-2 SNI (ISA/PCI) AMU Controller Configuration

Device	IRQ	I/O port	DMA	Memory
System Timer Controller	0	40h-5Fh		
Keyboard Controller	1	60h-60h 64h-64h		
Interrupt Controller	2	20h-3Fh A0h-BFh		
Serial Port COM2/COM4	3	2F8h-2FFh		
Serial Port COM1/COM3	4	3F8h-3FFh		
	5			
Floppy Controller	6	3F2h-3F5h 3F7h-3F7h	2	
Parallel Port LPT1/LPT3	7	378h-37Bh		
Real Time Clock Controller	8	70h-7Fh		
Video Adapter[a]	9			
	10			

Table 4-2 SNI (ISA/PCI) AMU Controller Configuration (Continued)

Device	IRQ	I/O port	DMA	Memory
	11			
Mouse Controller	12			
System Peripheral	13	F0h-FFh		
Primary IDE Controller	14	1F0h-1F7h 3F6h-3F6h		
Secondary IDE Controller[b]	15			
RAM Controller		62h-63h 65h-6Fh E0h-EFh		0h-9FFFFh 100000h-FFFFFFh FFFC0000h-FFFFFFFFh F0000h-FFFFFh
DMA Controller		80h-9Fh 0h-1Fh C0h-DFh	4	
System Peripheral		61h-61h		
VGA Controller		102h-102h 3B4h-3B5h 3BAh-3BAh 3C0h-3CCh 3CEh-3CFh 3D4h-3D5h 3DAh-3DAh 46E8h-46E8h		A0000h-BFFFFh C0000h-C7FFFh

[a] A video adapter may be installed and used for advanced controller configurations.

[b] A secondary IDE controller may be installed and used for advanced PC configurations.

The current COMPUDYNE controller configuration is listed in Table 4-3.

Table 4-3 COMPUDYNE (ISA/PCI) AMU Controller Configuration

Device	IRQ	I/O port	DMA	Memory
System Timer Controller	0	40h-5Fh		
Keyboard Controller	1	60h-60h 64h-64h		
Interrupt Controller	2	20h-3Fh A0h-BFh		
Serial Port COM2	3	2F8h-2FFh		
Serial Port COM1 [a]	4	3F8h-3FFh		
Serial Port COM3 [b]	5	3E8h-3EFh		
Floppy Controller	6	3F2h-3F5h 3F7h-3F7h	2	
Parallel Port LPT1 [c]	7	378h-37Bh		
Real Time Clock Controller	8	70h-7Fh		
Serial Port COM4 [d]	9	2E8h-2EFh		
	10			
	11			
PS/2 Mouse Controller [e]	12			
Co-processor	13	F0h-FFh		
Primary PCI IDE Controller	14	1F0h-1F7h 3F6h-3F6h		
Secondary PCI IDE Controller[f]	15			

Table 4-3 COMPUDYNE (ISA/PCI) AMU Controller Configuration (Continued)

Device	IRQ	I/O port	DMA	Memory
RAM Controller		62h-63h 65h-6Fh E0h-EFh		0h-9FFFFh 100000h-FFFFFFh FFFC0000h-FFFFFFFFh F0000h-FFFFFh
DMA Controller		80h-9Fh 0h-1Fh C0h-DFh	4	

a. COM1 is used to connect the serial mouse.

b. COM3 is installed, but may be disabled to free IRQ 5. Refer to the description of the SIIG HighSpeed I/O adapter installation for configuration instructions.

c. The parallel port LPT1 may be disabled to free IRQ 7. If a printer is not attached, disable parallel port support from the BIOS setup utility.

d. If COM4 is installed but not used, it may be disabled to free IRQ 9. Refer to the description of the SIIG HighSpeed I/O adapter installation for configuration instructions.

e. IRQ 12 is usually reserved for a PS/2 style mouse controller. Since the COMPUDYNE controller uses the COM1 serial port to provide mouse support, this IRQ is generally available. IRQ 12 may therefore be selected for the Stealth video controller, SCSI harddisk controller, or FDDI network adapter card.

f. IRQ 15 is usually reserved for a secondary IDE controller. If the BIOS setup utility did not enable both, the primary and secondary controller, but only the primary controller, IRQ 15 is generally available. If the CD-ROM drive uses the secondary IDE controller, make sure the CD-ROM drive gets connected to the primary IDE controller before the secondary controller gets disabled.

The COMPUDYNE AMU controller may need to select specific IRQ settings for its PCI slot assignments to allow IRQ configurations for adapter cards inserted in ISA slots. It is recommended to disable the PCI IRQ assignment for slots not used, and to specifically select an IRQ for the PCI slots that have adapter cards installed.

The COMPUDYNE controller does not have an IDE hard disk, but uses an IDE controlled CD-ROM drive. The CD-ROM drive does not require to be controlled by the secondary IDE controller, but may be connected to the primary IDE controller, IRQ 14. This setup frees IRQ 15, if the setup utility program only enables the primary IDE controller, and allows use of IRQ 15 for the Stealth 64 DRAM video controller. Selecting IRQ 12 for the SCSI hard disk controller, provides a setup that keeps IRQ 9, 10, and 11 available for other installed network adapters.

Table 4-1 ADIC/GRAU Controller (PCI/ISA) Configuration

Device	IRQ	I/O port	DMA	Memory
System Timer Controller	0	40h-5Fh		
Keyboard Controller	1	60h-60h 64h-64h		
Interrupt Controller	2	20h-3Fh A0h-BFh		
Serial Port	3	2F8h-2FFh		
Serial Port	4	3F8h-3FFh		
	5			
Floppy Controller	6	3F2h-3F5h 3F7h-3F7h	2	
Parallel Port LPT1[a]	7	378h-37Bh		
Real Time Clock Controller	8	70h-7Fh		
VGA Controller	9			A0000h-C000h Video RAM C0000h-C8000 32k Video RAM
	10			
	11			
Mouse Controller	12			
Math. Coprocessor	13			
Primary IDE Controller	14	1F0h-1F7h 3F6h-3F6h		
Secondary IDE Controller	15			
RAM Controller		62h-63h 65h-6Fh E0h-EFh		

Table 4-1 ADIC/GRAU Controller (PCI/ISA) Configuration (Continued)

Device	IRQ	I/O port	DMA	Memory
DMA Controller		80h-9Fh 0h-1Fh C0h-DFh	4	

a. If the parallel port is disabled in the BIOS IRQ 7 is available for use.

ADIC/GRAU Controller BIOS Setup

The AML-Controller has an AWARD BIOS Program. The BIOS ROM has a built-in Setup program that allows administrator to modify the basic system configuration. This type pf information is stored in battery backed RAM (CMOS RAM) so that it retains the setup information when the power is turned off.

Entering Setup

Turn on the computer and press <Del> immediately will allow you to enter setup.

Attention

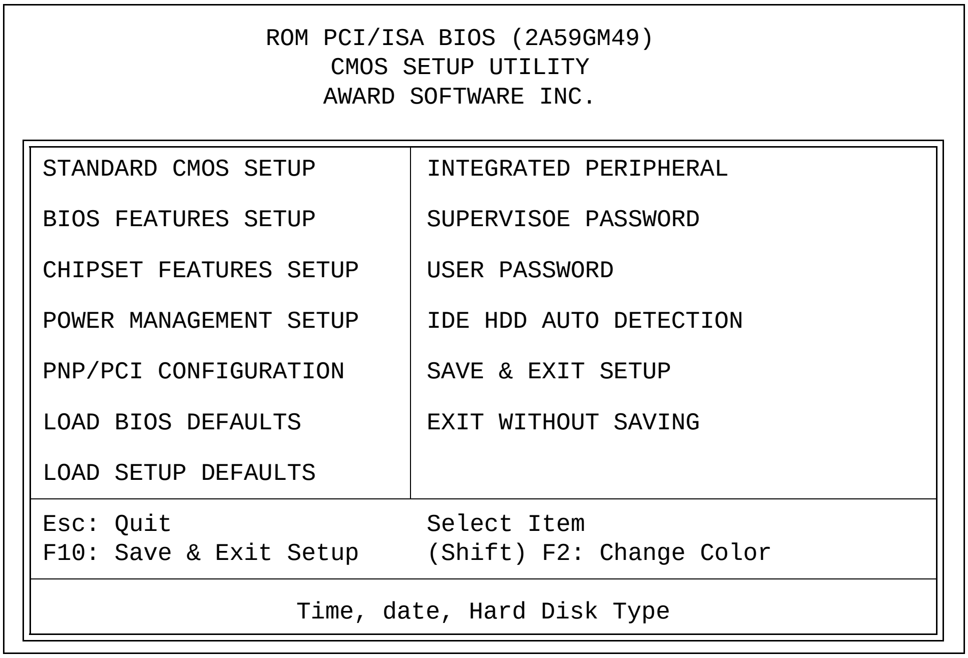
ATTENTION!
Damage of AML controller! Loss of data!

Only experienced personnel should enter this BIOS setup. Your changes in the BIOS setup can cause function errors or loss of function.

Main Menu

Once you enter Award BIOS CMOS Setup utility, the Main Menu will appear on the screen. The Main Menue allows you to select setup functions and exit choices.

Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.



```
                ROM PCI/ISA BIOS (2A59GM49)
                     CMOS SETUP UTILITY
                    AWARD SOFTWARE INC.

 STANDARD CMOS SETUP         INTEGRATED PERIPHERAL

 BIOS FEATURES SETUP         SUPERVISOE PASSWORD

 CHIPSET FEATURES SETUP      USER PASSWORD

 POWER MANAGEMENT SETUP      IDE HDD AUTO DETECTION

 PNP/PCI CONFIGURATION       SAVE & EXIT SETUP

 LOAD BIOS DEFAULTS          EXIT WITHOUT SAVING

 LOAD SETUP DEFAULTS

 Esc: Quit                   Select Item
 F10: Save & Exit Setup      (Shift) F2: Change Color

                 Time, date, Hard Disk Type
```

Figure 4-5 Window Main Menue BIOS SETUP UTILITY

Field	Explanation
STANDARD CMOS SETUP	Open the dialog for setting basic values in BIOS program (<ZD>+ “Standard CMOS Setup Menu” from page - 20)
BIOS FEATURES SETUP	Open the dialog for setting additional values in BIOS program (<ZD>+ “BIOS Features Setup” from page - 21)
CHIPSET FEATURES SETUP	Open the dialog for setting chipset specific c values in BIOS program (<ZD>+ “Chipset Features Setup” from page - 22)
POWER MANAGEMENT SETUP	Open the dialog for setting basic power save values in BIOS program (<ZD>+ “Power Management Setup” from page - 24)
PNP/PCI CONFIGURATION	Open the dialog for set the IRQ and DMA values for the boards in the controller (<ZD>+ “PNP/PCI Configuration” from page - 25)

Field	Explanation
`LOAD BIOS DEFAULTS`	
`LOAD SETUP DEFAULTS`	This item loads the default system values. If the CMOS is crrupted the defaults are loaded automatically. If this occur or you choose this item, you have to check the values in the BIOS menues. For use Setup defaults confirm the change with the ’Y’ in American keyboard (use ’Z’ in the german keyboard) and press <Enter>.
`INTEGRATED PERIPHERAL`	Open the dialog for set the values for harddisk and floppy controller
`SUPERVISOR PASSWORD`	Function to enter password, for each controller start and BIOS utilities access. On the AML controller is no supervisor password
`USER PASSWORD`	Function to enter password, for each controller start . On the AML controller is no user password in the BIOS
`IDE HDD AUTO DETECTION`	Utility to detect hard disk drives, but only necessary if in the menue CMOS Setup is the type not AUTO
`SAVE & EXIT SETUP`	Choose this field to write your chances in the CMOS RAM and leave the program. The Function is to confirm thwith the ’Y’ in American keyboard (use ’Z’ in the german keyboard) and press <Enter>.
`EXIT WITHOUT SAVING`	Choose this field, if you want cancel changes or only after a look in the BIOS utility program.

Standard CMOS Setup Menu

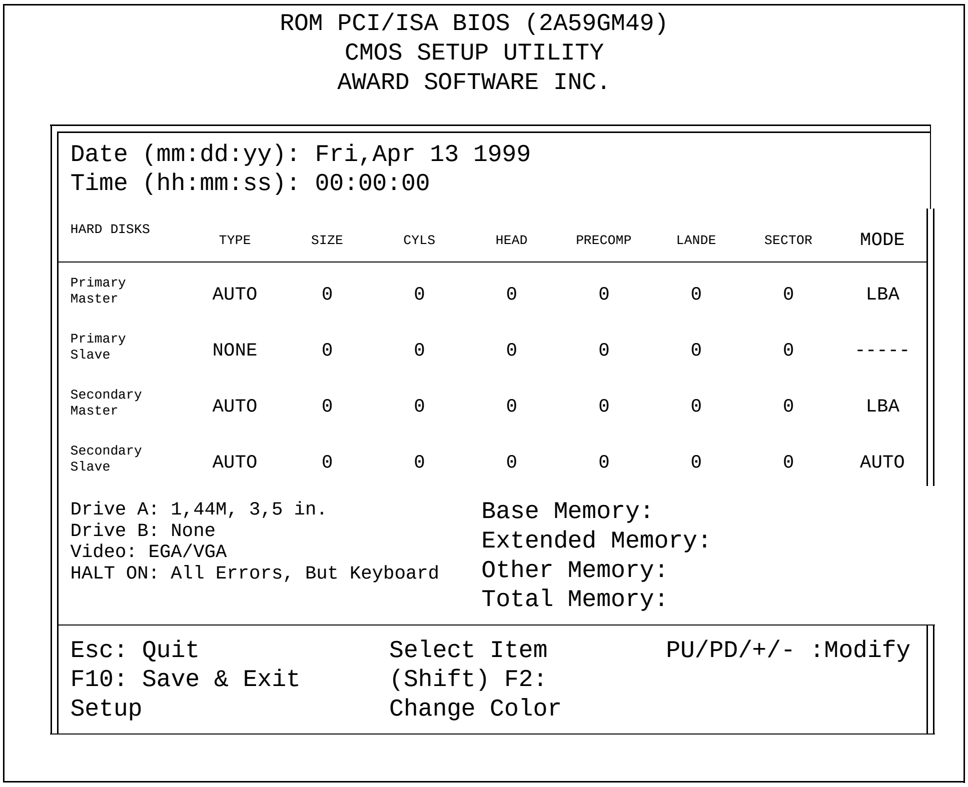
Step 1 Choose „STANDARD CMOS SETUP“ from the Main Menue

Step 2 Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to modify the value

Step 3 Set time and date

Step 4 Set hard disks configuration
(<ZD>+ “Window Standard CMOS Setup” from page -

21).



```
                    ROM PCI/ISA BIOS (2A59GM49)
                        CMOS SETUP UTILITY
                       AWARD SOFTWARE INC.

 Date (mm:dd:yy): Fri,Apr 13 1999
 Time (hh:mm:ss): 00:00:00

 HARD DISKS
               TYPE   SIZE   CYLS   HEAD   PRECOMP   LANDE   SECTOR   MODE

 Primary
 Master        AUTO    0      0      0       0         0       0       LBA

 Primary
 Slave         NONE    0      0      0       0         0       0       -----

 Secondary
 Master        AUTO    0      0      0       0         0       0       LBA

 Secondary
 Slave         AUTO    0      0      0       0         0       0       AUTO

 Drive A: 1,44M, 3,5 in.                 Base Memory:
 Drive B: None                           Extended Memory:
 Video: EGA/VGA                          Other Memory:
 HALT ON: All Errors, But Keyboard       Total Memory:

 Esc: Quit             Select Item          PU/PD/+/- :Modify
 F10: Save & Exit      (Shift) F2:
 Setup                 Change Color
```

Figure 4-6 Window Standard CMOS Setup

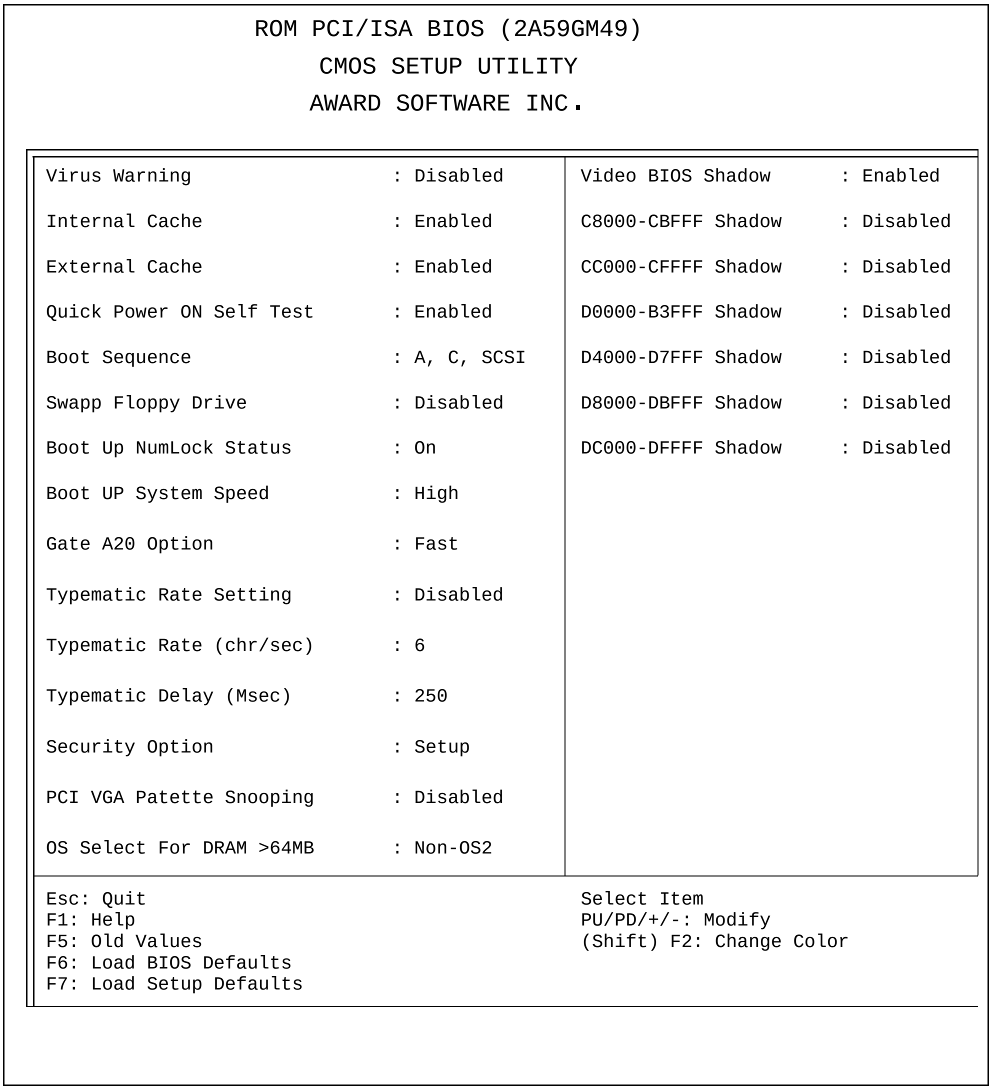
Step 5 After you have finished with the function, press the <ESC> key to return to the main menu

BIOS Features Setup

Step 1 Choose „STANDARD CMOS SETUP“ from the Main Menue

Step 2 Load Bios Defaults (= press key **<F6>**)

Step 3 Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to modify the value



```
                    ROM PCI/ISA BIOS (2A59GM49)
                         CMOS SETUP UTILITY
                        AWARD SOFTWARE INC.

Virus Warning                : Disabled     Video BIOS Shadow      : Enabled
Internal Cache               : Enabled      C8000-CBFFF Shadow     : Disabled
External Cache               : Enabled      CC000-CFFFF Shadow     : Disabled
Quick Power ON Self Test     : Enabled      D0000-B3FFF Shadow     : Disabled
Boot Sequence                : A, C, SCSI   D4000-D7FFF Shadow     : Disabled
Swapp Floppy Drive           : Disabled     D8000-DBFFF Shadow     : Disabled
Boot Up NumLock Status       : On           DC000-DFFFF Shadow     : Disabled
Boot UP System Speed         : High
Gate A20 Option              : Fast
Typematic Rate Setting       : Disabled
Typematic Rate (chr/sec)     : 6
Typematic Delay (Msec)       : 250
Security Option              : Setup
PCI VGA Patette Snooping     : Disabled
OS Select For DRAM >64MB     : Non-OS2

Esc: Quit                                   Select Item
F1: Help                                    PU/PD/+/-: Modify
F5: Old Values                              (Shift) F2: Change Color
F6: Load BIOS Defaults
F7: Load Setup Defaults
```

Figure 4-7 Window Bios Feature Setup

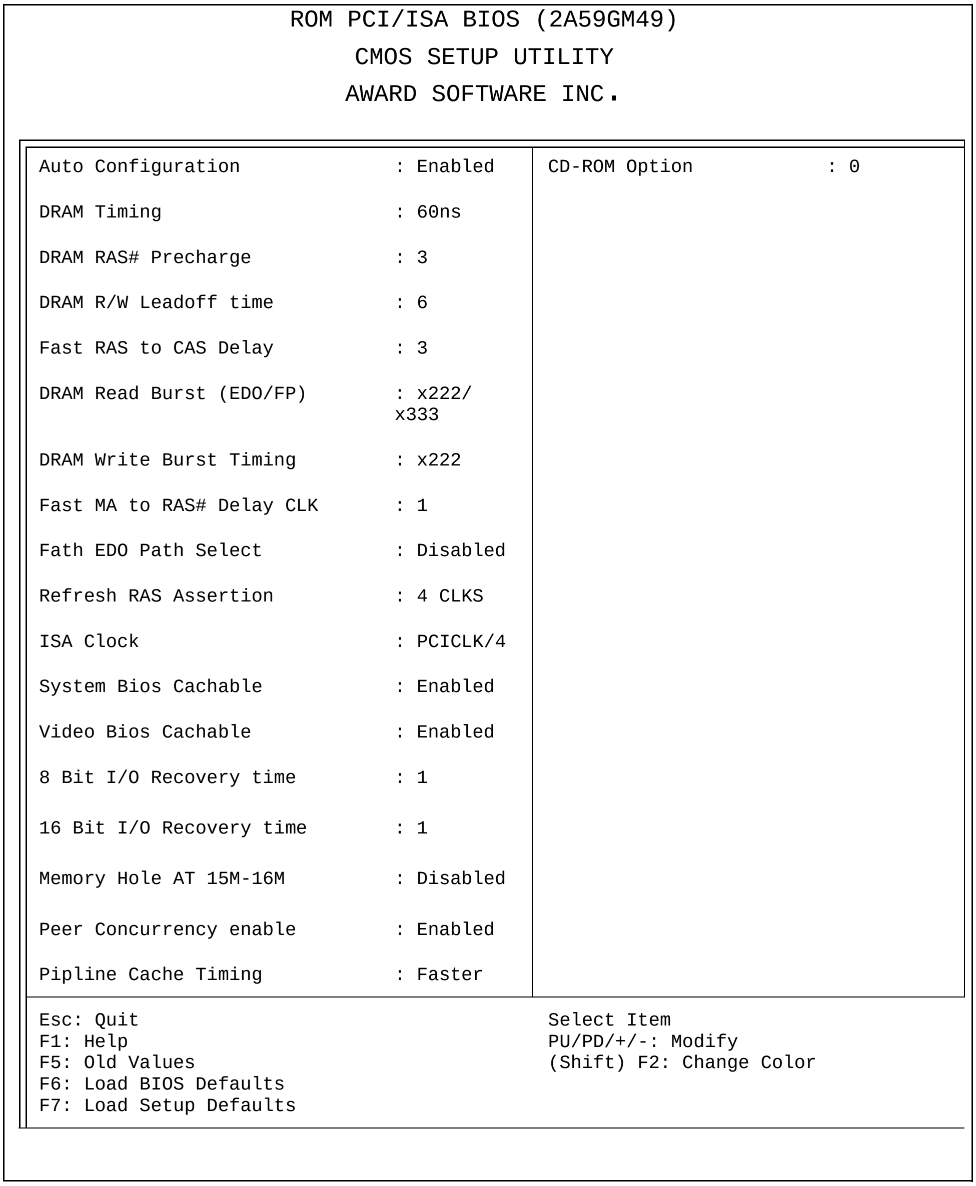
Step 4 After you have finished with the function, press the <ESC> key to return to the main menu

Chipset Features Setup

Step 1 Choose „Chipset Features Setup“ from the Main Menue

Step 2 Load Bios Defaults (= press key **<F6>**)

Step 3 Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to modify the value



```
                 ROM PCI/ISA BIOS (2A59GM49)
                     CMOS SETUP UTILITY
                    AWARD SOFTWARE INC.

Auto Configuration              : Enabled   CD-ROM Option          : 0

DRAM Timing                     : 60ns

DRAM RAS# Precharge             : 3

DRAM R/W Leadoff time           : 6

Fast RAS to CAS Delay           : 3

DRAM Read Burst (EDO/FP)        : x222/
                                x333

DRAM Write Burst Timing         : x222

Fast MA to RAS# Delay CLK       : 1

Fath EDO Path Select            : Disabled

Refresh RAS Assertion           : 4 CLKS

ISA Clock                       : PCICLK/4

System Bios Cachable            : Enabled

Video Bios Cachable             : Enabled

8 Bit I/O Recovery time         : 1

16 Bit I/O Recovery time        : 1

Memory Hole AT 15M-16M          : Disabled

Peer Concurrency enable         : Enabled

Pipline Cache Timing            : Faster

Esc: Quit                                   Select Item
F1: Help                                    PU/PD/+/-: Modify
F5: Old Values                              (Shift) F2: Change Color
F6: Load BIOS Defaults
F7: Load Setup Defaults
```

Figure 4-8 Window Chipset Feature Setup

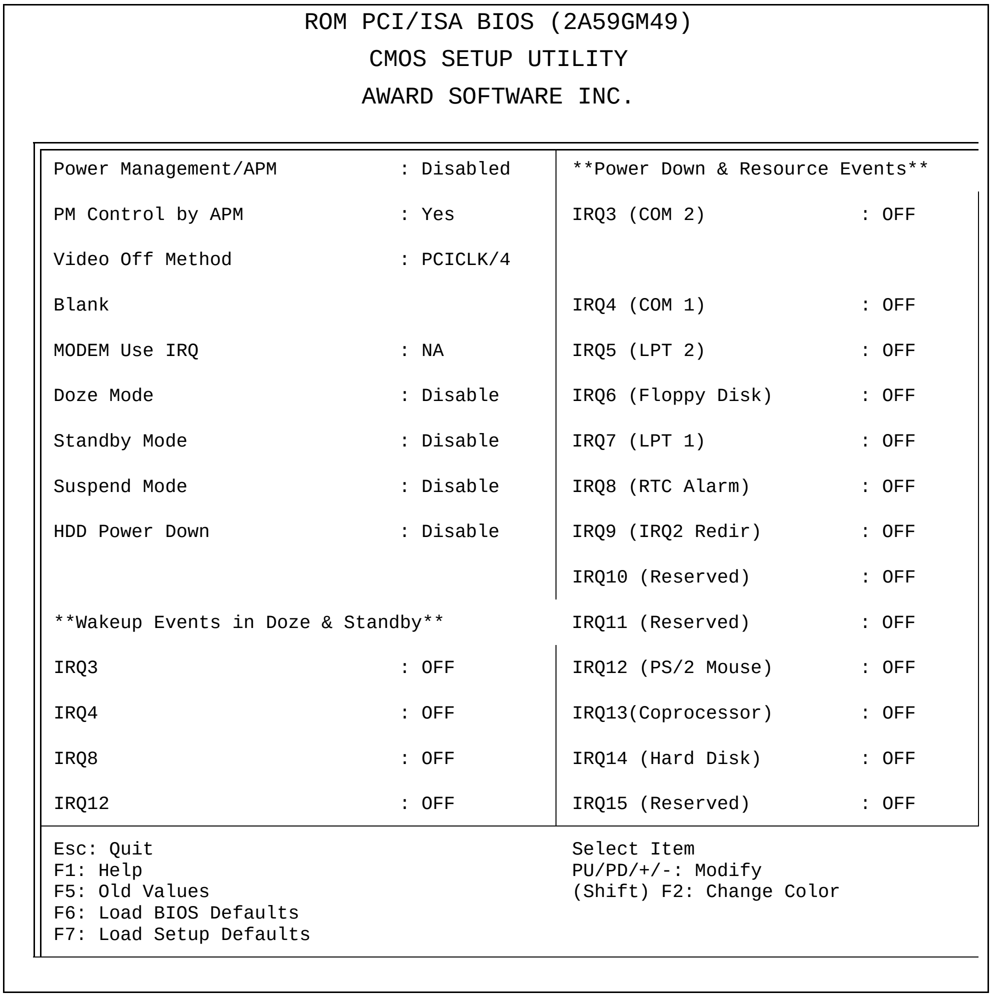
Step 4 After you have finished with the function, press the <ESC> key to return to the main menu

Power Management Setup

Step 1 Choose „Power management Setup“ from the Main Menue

Step 2 Set Power Management to Disabled

Step 3 Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to modify the value



```
                 ROM PCI/ISA BIOS (2A59GM49)
                     CMOS SETUP UTILITY
                     AWARD SOFTWARE INC.

Power Management/APM        : Disabled  **Power Down & Resource Events**
PM Control by APM           : Yes       IRQ3 (COM 2)            : OFF
Video Off Method            : PCICLK/4
Blank                                   IRQ4 (COM 1)            : OFF
MODEM Use IRQ               : NA        IRQ5 (LPT 2)            : OFF
Doze Mode                   : Disable   IRQ6 (Floppy Disk)      : OFF
Standby Mode                : Disable   IRQ7 (LPT 1)            : OFF
Suspend Mode                : Disable   IRQ8 (RTC Alarm)        : OFF
HDD Power Down              : Disable   IRQ9 (IRQ2 Redir)       : OFF
                                        IRQ10 (Reserved)        : OFF
**Wakeup Events in Doze & Standby**     IRQ11 (Reserved)        : OFF
IRQ3                        : OFF       IRQ12 (PS/2 Mouse)      : OFF
IRQ4                        : OFF       IRQ13(Coprocessor)      : OFF
IRQ8                        : OFF       IRQ14 (Hard Disk)       : OFF
IRQ12                       : OFF       IRQ15 (Reserved)        : OFF

Esc: Quit                               Select Item
F1: Help                                PU/PD/+/-: Modify
F5: Old Values                          (Shift) F2: Change Color
F6: Load BIOS Defaults
F7: Load Setup Defaults
```

Figure 4-9 Window Power Management

Step 4 After you have finished with the function, press the <ESC> key to return to the main menu

PNP/PCI Configuration

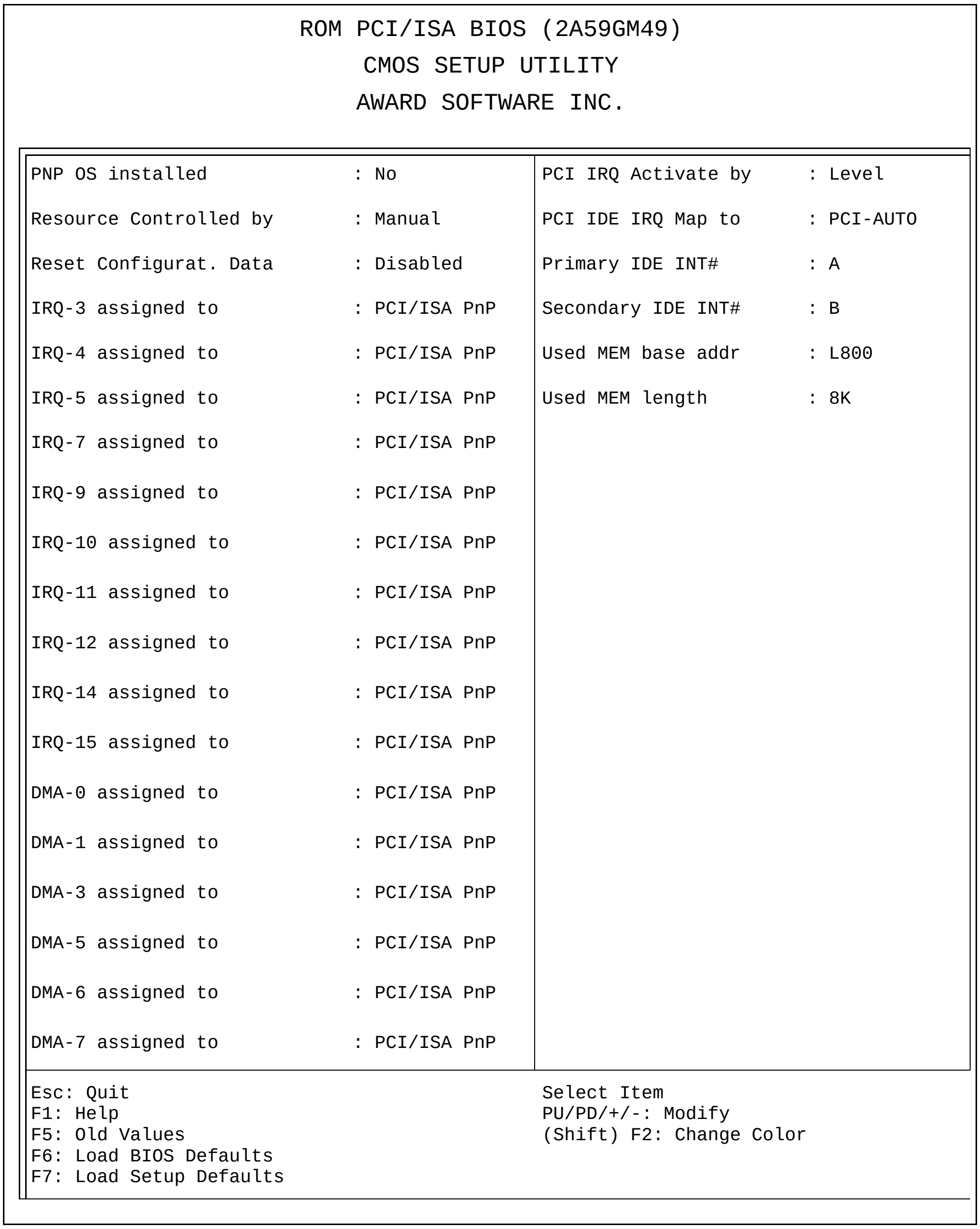
Step 1 Choose „PNP/PCI Configuration“ from the Main Menue

Step 2 Change the **Resource Controlled by** to **Manual**

Step 3 Enter **Legacy ISA** for each IRQ which is occupied by an ISA board (default IRQ5 and IRQ7)

Step 4 Make sure that you have for each IRQ only one board

Step 5 Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to modify the value



```
                    ROM PCI/ISA BIOS (2A59GM49)
                        CMOS SETUP UTILITY
                       AWARD SOFTWARE INC.

PNP OS installed             : No              PCI IRQ Activate by     : Level
Resource Controlled by       : Manual          PCI IDE IRQ Map to      : PCI-AUTO
Reset Configurat. Data       : Disabled        Primary IDE INT#        : A
IRQ-3 assigned to            : PCI/ISA PnP     Secondary IDE INT#      : B
IRQ-4 assigned to            : PCI/ISA PnP     Used MEM base addr      : L800
IRQ-5 assigned to            : PCI/ISA PnP     Used MEM length         : 8K
IRQ-7 assigned to            : PCI/ISA PnP
IRQ-9 assigned to            : PCI/ISA PnP
IRQ-10 assigned to           : PCI/ISA PnP
IRQ-11 assigned to           : PCI/ISA PnP
IRQ-12 assigned to           : PCI/ISA PnP
IRQ-14 assigned to           : PCI/ISA PnP
IRQ-15 assigned to           : PCI/ISA PnP
DMA-0 assigned to            : PCI/ISA PnP
DMA-1 assigned to            : PCI/ISA PnP
DMA-3 assigned to            : PCI/ISA PnP
DMA-5 assigned to            : PCI/ISA PnP
DMA-6 assigned to            : PCI/ISA PnP
DMA-7 assigned to            : PCI/ISA PnP

Esc: Quit                                      Select Item
F1: Help                                       PU/PD/+/-: Modify
F5: Old Values                                 (Shift) F2: Change Color
F6: Load BIOS Defaults
F7: Load Setup Defaults
```

Figure 4-10 Window PNP/PCI Configuration

Step 6 Enter **Legacy ISA** for each IRQ which is occupied by an ISA board

Step 7 Make sure that you have for each IRQ only one board

Step 8 After you have finished with the function, press the <ESC> key to return to the main menu

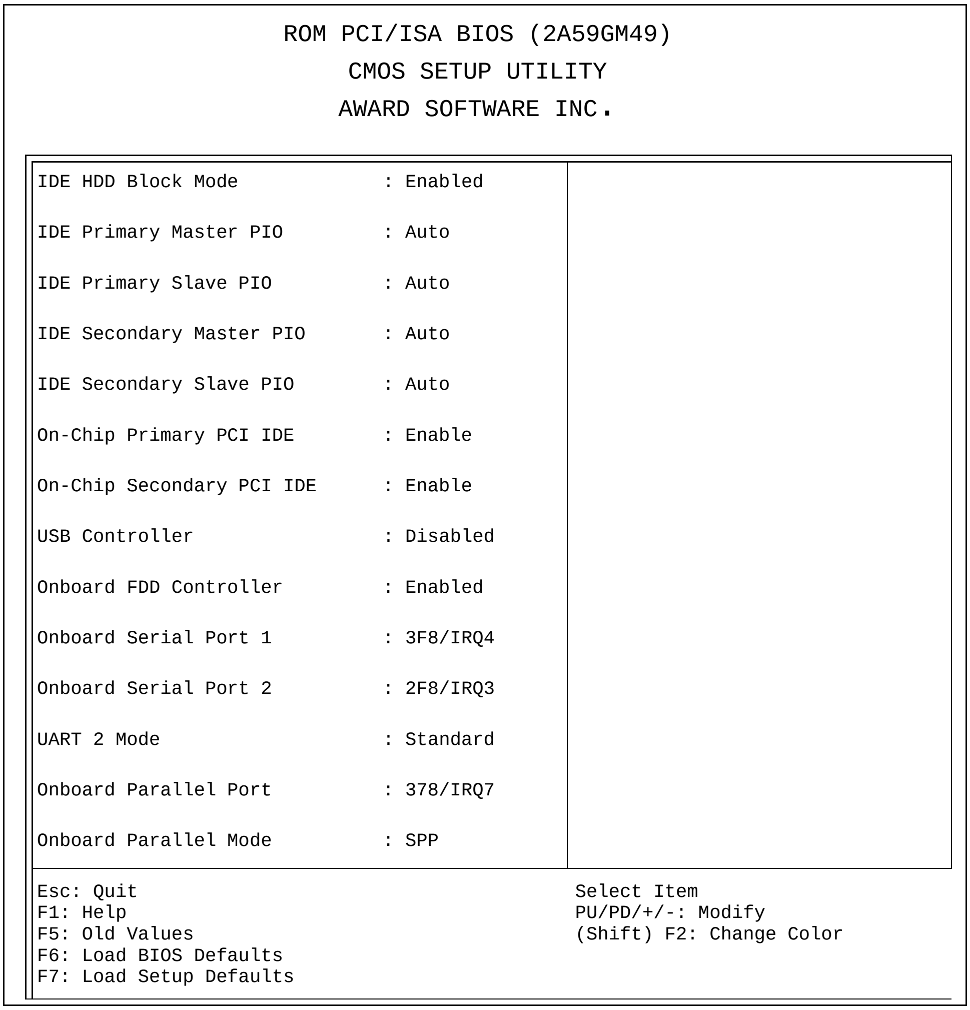
Integrated Peripherals

Step 1 Choose „Integrated Perpherals“ from the Main Menue

Step 2 Enter **Legacy ISA** for each IRQ which is occupied by an ISA board

Step 3 Make sure that you have for each IRQ only one board

Step 4 Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to modify the value



```
                    ROM PCI/ISA BIOS (2A59GM49)
                        CMOS SETUP UTILITY
                       AWARD SOFTWARE INC.

IDE HDD Block Mode             : Enabled

IDE Primary Master PIO         : Auto

IDE Primary Slave PIO          : Auto

IDE Secondary Master PIO       : Auto

IDE Secondary Slave PIO        : Auto

On-Chip Primary PCI IDE        : Enable

On-Chip Secondary PCI IDE      : Enable

USB Controller                 : Disabled

Onboard FDD Controller         : Enabled

Onboard Serial Port 1          : 3F8/IRQ4

Onboard Serial Port 2          : 2F8/IRQ3

UART 2 Mode                    : Standard

Onboard Parallel Port          : 378/IRQ7

Onboard Parallel Mode          : SPP

Esc: Quit                                        Select Item
F1: Help                                         PU/PD/+/-: Modify
F5: Old Values                                   (Shift) F2: Change Color
F6: Load BIOS Defaults
F7: Load Setup Defaults
```

Figure 4-11 Window PNP/PCI Configuration

Step 5 After you have finished with the function, press the <ESC> key to return to the main menu

5

Adapter Installation

Overview

Adapter card installations depend on the AML configuration and network/host attachment. Once the adapter cards are ready to be installed and all necessary software support is available, turn off the AMU controller, disconnect it from any network, modem, RS232 connection, and power source. Remove the controller housing to insert and secure all necessary adapter cards.

Adapter Card Installation

Table 5-1 on page 5-4 lists all currently supported AMU controller adapter cards for Micro Channel and non-Micro Channel controllers. Refer to Table 5-1 on page 5-4 to determine which adapter card and support software to installed for specific AML type, AMU controller type, and network connection. Then proceed to the section detailing the adapter card installation.

☞ **Note**

After the adapter cards have been installed, use the adapter configuration software to configure IRQs and I/O address space. Use this same software to test the adapter operation.

Make sure that OS/2 is loaded, but no network software has been configured (LAPS, MPTS, SIO). Network software installations update the CONFIG.SYS which prevents the adapter configuration software from accessing the adapter card. (Save the current CONFIG.SYS and then modify the file to remove all network driver interface statements to allow adapter configurations.)

Micro Channel and Micro Channel/PCI controllers configure installed adapter cards with the system programs and automatically assign and resolve IRQ and memory addresses. However, in Micro Channel/PCI controllers such automatic configuration may conflict with PCI configurations. If the controller boots displaying an error code **1800** or **1801**, the installed adapter conflicts with an IRQ or memory address assignment and requires manual configuration from the system programs configuration menu.

ISA/PCI controllers configure installed adapter cards with jumpers, micro-switches, or adapter utility programs. IRQ and memory assignments need to be selected and configured manually for ISA adapters. PCI adapter cards may have the IRQ lines automatically selected with the system configuration's auto-select feature, however, conflicts with IRQ configurations in the ISA system bus may still occur. In such case, it is advisable to either select a different IRQ line for the ISA adapter card, or to manually select an IRQ line for the PCI adapter, disabling the auto-select feature.

Table 5-1 AMU Controller Adapter Card Support

Adapter card	AML	AMU controller	Usage	Software
PMAC Adapter	AML/J	ISA	Robot controller	PMAC robot software
3Com EtherLink III Adapter	AML/J, AML/E, AML/2 AML/S	ISA	TCP/IP connection to network	3Com EtherDisk, TCP/IP, LAPS or MPTS
3Com EtherLink III MC Adapter	AML/E, AML/2	Micro Channel	TCP/IP connection to network	3Com EtherDisk, TCP/IP, LAPS or MPTS
3Com TokenLink III Adapter	AML/J, AML/E, AML/2 AML/S	ISA	TCP/IP or Token-Ring connection to network	3Com TokenDisk, Communications Manager/2, LAPS or MPTS,
IBM Token-Ring Network 16/4 Adapter/A	AML/J, AML/E, AML/2	ISA, Micro Channel	TCP/IP or Token-Ring connection to network	Communications Manager/2, LAPS or MPTS
IBM Auto 16/4 Token-Ring Adapter	AML/J, AML/E, AML/2	ISA, Micro Channel	TCP/IP or Token-Ring connection to network	Communications Manager/2, LAPS or MPTS
3Com FDDILink PCI Adapter (SAS)	AML/J, AML/E, AML/2, AML/S	PCI	TCP/IP or Token-Ring single ring network connection	3Com FDDIDisk, TCP/IP for OS/2 or Communications Manager/2, LAPS or MPTS
3Com FDDILink PCI Adapter (DAS)	AML/J, AML/E, AML/2, AML/S	PCI	TCP/IP or Token-Ring dual ring network connection	3Com FDDIDisk, TCP/IP or Communications Manager/2, LAPS or MPTS
IBM FDDI Fiber Base MC Adapter (SAS)	AML/E, AML/2	Micro Channel	TCP/IP or Token-Ring single ring network connection	FDDI Option disk, TCP/IP for OS/2 or Communications Manager/2, LAPS or MPTS

Table 5-1 AMU Controller Adapter Card Support (Continued)

Adapter card	AML	AMU controller	Usage	Software
IBM FDDI Fiber Extended MC Adapter (DAS)	AML/E, AML/2	Micro Channel	TCP/IP or Token-Ring dual ring network connection	FDDI Option disk, TCP/IP or Communications Manager/2, LAPS or MPTS
IBM 3278/79 Adapter	AML/J, AML/E, AML/2	ISA, Micro Channel	Coaxial DFT connection for 3270 emulation	Communications Manager/2
IBM Dual Async Adapter/A	AML/E, AML/2	Micro Channel	COM port extension	(BIOS supported)
SOTEC Async Adapter	AML/E, AML/2	ISA	COM port extension	SOTEC support disk
SIIG HighSpeed I/O Adapter	AML/E, AML/2	ISA	COM port extension	(BIOS supported)
IBM RIC Adapter	AML/E, AML/2	ISA	COM port extension	Quadron qCOM port expander disk
IBM Multiport/2 Adapter	AML/E, AML/2	Micro Channel	COM port extension	Multiport Option disk, Quadron qCOM port expander disk

Table 5-3 through Table 5-9 list commonly used adapter card combinations and their respective ISA, ISA/PCI configuration assignments. In SNI AMU controllers, IRQ 2 redirects the IRQ to IRQ 9 and requires that the BIOS setup utility disables any VGA interrupt to support a separate VGA adapter.

☞ **Note**

Adapter cards with a fixed bus width of 8 bit (3270 adapter) may only configure IRQ assignments in the range 0 to 7.

Table 5-2 Example of PMAC Lite, 3270 Emulation, TokenLink III, and EtherLink III Adapter Configuration for Dell Controller

Adapter	Base I/O	IRQ	Memory	Bus width
PMAC Lite Adapter	210			

Table 5-2 Example of PMAC Lite, 3270 Emulation, TokenLink III, and EtherLink III Adapter Configuration for Dell Controller

Adapter	Base I/O	IRQ	Memory	Bus width
3270 Emulation Adapter	02D0	2	0CE000-0CE1FFF	***
3Com EtherLink III Adapter	300	10	***	***
3 Com TokenLink III Adapter	86A0	11	***	***

Table 5-3 Example of 3270 Emulation Adapter and RIC Adapter Configuration for SNI Controller

Adapter	Base I/O	IRQ	Memory	Bus width
3270 Emulation Adapter	02D0	2	0CE000-0CE1FFF	***
Token-Ring Adapter	86A0	10	***	***
RIC Adapter	06A0	11	0D0000-0D1FFF	8-bit

Table 5-4 Example of 3270 Emulation Adapter and Dual Async Adapter Configuration for SNI Controller

Adapter	Base I/O	IRQ	Memory	Bus width
3270 Emulation Adapter	02D0	2	0CE000-0CE1FFF	***
Dual Async Adapter	3E8 (COM3) 2E8 (COM4)	5 11	***	***

Table 5-5 Example of Token-Ring and RIC Adapter Configuration for SNI Controller

Adapter	Base I/O	IRQ	Memory	Bus width
Token-Ring Adapter	86A0	10	***	***
RIC Adapter	06A0	11	0D0000-0D1FFF	16 bit

Table 5-6 Example of 3270 Emulation Adapter, Token-Ring and RIC Adapter Configuration for SNI Controller

Adapter	Base I/O	IRQ	Memory	Bus width
3270 Adapter	02D0	2	0CE000-0CE1FFF	***
Token-Ring Adapter	86A0	10	***	***
RIC Adapter	06A0	11	0D0000-0D1FFF	8 bit

Table 5-7 Example of EtherLink III and RIC Adapter Configuration for SNI Controller

Adapter	Base I/O	IRQ	Memory	Bus width
3Com EtherLink III Adapter	300	10	***	***
RIC Adapter	06A0	11	0D0000-0D1FFF	16 bit

Table 5-8 Example of EtherLink III, Token-Ring and RIC Adapter Configuration for SNI Controller

Adapter	Base I/O	IRQ	Memory	Bus width
3Com EtherLink III Adapter	300	10	***	***
Token-Ring Adapter	86A0	11	***	***
RIC Adapter	06A0	5	0D0000-0D1FFF	16 bit

Table 5-9 Example of 3270 Emulation Adapter, Token-Ring, EtherLink III and Dual Async Adapter Configuration for SNI Controller

Adapter	Base I/O	IRQ	Memory	Bus width
3270 Adapter	02D0	2	0CE000-0CE1FFF	***
3Com EtherLink III Adapter	300	10	***	***
Token-Ring Adapter	86A0	11	***	***

Table 5-9 Example of 3270 Emulation Adapter, Token-Ring, EtherLink III and Dual Async Adapter Configuration for SNI Controller

Adapter	Base I/O	IRQ	Memory	Bus width
Dual Async Adapter	3E8 (COM3) 2E8 (COM4)	5 7	***	***

☞ Note

This configuration does not allow use of the parallel port (printer attachment) since IRQ 7 is assigned to COM4.

Table 5-10 Example of 3270, Token-Ring, EtherLink III and PCI FDDILink Adapter Configuration for COMPUDYNE Controller

Adapter	Base I/O	IRQ	Memory	Bus width
3270 Adapter	02D0	2	0CE000-0CE1FFF	***
3Com EtherLink III Adapter	300	9[a]	***	***
3Com TokenLink III Adapter	310	10	***	***
3Com FDDILink PCI Adapter		11	***	***

a. The IRQ 9 assignment for the Ethernet adapter requires COM4 to be disabled.

Table 5-11 Recommended ADIC/GRAU controller adapter configuration

Adapter	Base I/O	IRQ	Memory	Bus width
AML/2 and AML/E configuration				
Artic adapter	02A0h	7	0D0000h-0D1FFFh	8
3Com Etherlink III[a]	0300h	10		
3Com TolkenLink III	0A20h	5	0CC000h,0D8000h-0DBFFFh	
3270 adapter	02D0h	2	0CE000h-0CE1FFFh	8

Table 5-11 Recommended ADIC/GRAU controller adapter configuration

Adapter	Base I/O	IRQ	Memory	Bus width
3Com FDDILink (DAS)[2]		10		
3Com FDDILink (SAS)[2]		10		
AML/J configuration				
PMAC adapter	0210h			
3Com Etherlink III[2]	0300h	10		
3Com TolkenLink III	0A20h	5	0CC000h,0D8000h-0DBFFFh	
3270 adapter	02D0h	2	0CE000h-0CE1FFFh	8
3Com FDDILink (DAS)[2]		10		
3Com FDDILink (SAS)[2]		10		
AML/S Configuration				
Adaptec 2940AU		11		
3Com Etherlink III[2]	0300h	10		
3Com TolkenLink III	0A20h	5	0CC000h,0D8000h-0DBFFFh	
3270 adapter	02D0h	2	0CE000h-0CE1FFFh	8
3Com FDDILink (DAS)[2]		10		
3Com FDDILink (SAS)[2]		10		

a. Only one of these boards (EtherLink III, FDDILink (DAS), or FDDILink (SAS)) should be installed in the PC. This allows all three boards to use interrupt 10.

Use Table 5-12 to enter your AMU controller specific adapter card installation and configuration assignment values:

Note

If the SCSI adapter is an AHA2940AU the device driver, AIC7870.add, needs to be copied from the device driver diskette, that comes with the adapter card, to the C:\OS2\Boot directory follow the instructions in the Adaptec 7800 User's Guide. The Adaptec 7800 User's Guide states that the driver needs to be copied to the OS2 directory. However, for OS/2 warp the driver needs to be copied to the C:\OS2\Boot directory. The new device driver AIC7870.ADD is in the OS2 Directory on the driver diskette and has a date of 4-19-96.

Table 5-12 Configuration Template

Adapter	Base I/O	IRQ	Memory	Bus width

PMAC Adapter Card Installation

The PMAC (Programmable Multi-Axis Controller) provides control operations for the AML/J robot. See Figure 5-1. The PMAC adapter card is previously configured and needs to be inserted into one of the motherboard ISA slots.

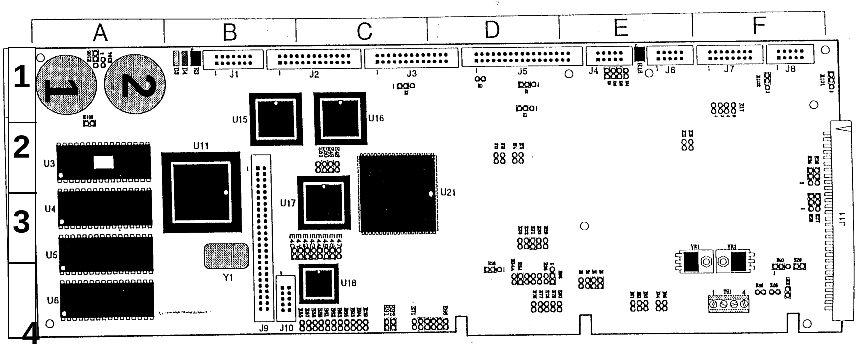


Figure 5-1 PMAC Lite Adapter Card (without AKKU)

The PMAC adapter occupies 16 addresses in the controller's port I/O space. The base address of this space is set with jumpers E91, E92, and E66, to E71. The address may not conflict with any other address space. The default setting is 210h (E91=1, E92=1, E66=0, E67=1, E68=1, E69=1, E70=1, E71=0).

The PMAC adapter communication is performed with a polling scheme, rather than an interrupt based communication scheme. IRQ values do not need configuration and the PMAC IRQ jumpers E76 to E84 are not installed. See Table 5-13 for the complet jumper settings for AML/J. The grey fields shows the jumper different from the factory settings.

Table 5-13 PMAC Jumper Assignments

Jumper	Position	AML/J setting	Description
E0	D3	no jumper	reserved
E1	D1	1-2	Gnd to Pin 11 of U26
E2		1-2	+V to Pin 10 of U26

Table 5-13 PMAC Jumper Assignments

E3	E4	no jumper	Servo clock frequencycontrol
E4		no jumper	
E5		jumper	
E6		jumper	
E7	C1	1-2	machine input source/sink control
E9	E1	jumper	serial interface handshake control
E10		jumper	
E11		jumper	
E13		jumper	
E14		jumper	
E17a	F1	no jumper	Amplifier-enable/Direction polarity control
E17b		no jumper	
E17c		no jumper	
E17d		no jumper	
E22	E2	no jumper	Control panel handwheel enable
E23		no jumper	
E24	F3	2-3	Encoder Differential Control
E25		2-3	
E26		2-3	
E27		2-3	
E28	D4	2-3	Warning following error/ watchdog timer signal control
E29		no jumper	Phase clock frequency control
E30		no jumper	
E31		jumper	
E32		no jumper	
E33		no jumper	

Table 5-13 PMAC Jumper Assignments

E34	C4	jumper	Encoder sampling clock frequency control
E35		no jumper	
E36		no jumper	
E37		no jumper	
E38		no jumper	
E39	C4	1-2	Reset from bus enable
E40	C3	jumper	Software adress control
E41		jumper	
E42		jumper	
E43		jumper	
E44	C3	no jumper	Communication control
E45		jumper	
E46		jumper	
E47		no jumper	
E48	C2	no jumper	RAM wait state control
E49	C2	jumper	Serial communication parity control
E50	C2	jumper	EAROM save enable/disable
E51	C2	no jumper	Re-initializing power up (can be used during installation for general reset)
E55	B4	no jumper	Host interrupt signal select
E57	C4	no jumper	
E58		no jumper	
E59		no jumper	
E61		no jumper	
E62		no jumper	
E63		no jumper	
E65		no jumper	

Table 5-13 PMAC Jumper Assignments

E66	C4/D4	no jumper	Bus base hardware address (210 Hex)
E67		jumper	
E68		jumper	
E69		jumper	
E70		jumper	
E71		no jumper	
E72	D2	no jumper	Panel analog timr base signal enable
E73		no jumper	
E74	D2	no jumper	Clock output control for ext. interpolation
E75		no jumper	
E76	D4	no jumper	Host interrupt signal select (no interrupt)
E77		no jumper	
E78		no jumper	
E79		no jumper	
E80	E4	no jumper	
E81		no jumper	
E82		no jumper	
E83		no jumper	
E84		no jumper	
E85	F4	no jumper	Host-supplied analog power source enable
E86	E4	no jumper	Host interrupt signal select
E87	F4	no jumper	Host-supplied analog power source enable
E88		no jumper	
E89	F3	jumper	Amplifier-supplied switch pull enable
E90	C1	1-2	Host-supplied switch pull-up enable
E91	C4	jumper	Bus base adress select (high bits)
E92		jumper	
E93	C4	no jumper	Reset from bus by software enable
E94		no jumper	

Table 5-13 PMAC Jumper Assignments

E98	D4	1-2	DAC/ADC clock frequency control
E101		2-3	Amplifier enable output configure
E102		2-3	
E103	A2	jumper	Watchdog timer
E104	A1	no jumper	Boot from PROM IC
E105 (only boards with battery)	A1	1-2	Battery on position bat 1
		2-3	Battery on position bat 2

Table 5-14 PMAC installed opto coupler

Chip	Loc.	Ex works	AML/J	Order no.	Explanation
U26	D1	ULN2803A	ULN2803A	-	Machine Source Output
U54	F1	ULN2803A	UDN2981A	15U900003	Amplifier Source Output

Table 5-15 PMAC additional resistor arrays

Chip	Location	Type
RP 50	F3	4 x 120 Ω 8 Pins
RP 44	F3	4 x 120 Ω 8 Pins
RP 34	F3	4 x 120 Ω 8 Pins

☞ **Note**

Make sure the adapter card has all three red resistor packs installed, prior to installing the adapter in the AMU controller.

The PMAC Lite adapter is supported with and without an AKKU (battery).

Follow the steps below to install the adapter:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller’s housing and locate two empty and adjacent ISA slots (ISA and PCI slot) to insert and connect the PMAC adapter.

Step 4 Remove the PMAC adapter from its protective wrapping and make sure the PMAC jumper settings for the I/O base address and IRQ settings are correct (IRQ support disabled).

Step 5 Insert the adapter card in the ISA slot and ensure the adapter card backplate is flush with the controller backplane. Secure the screw to seat the adapter.

Step 6 Attach the three external PMAC controller cable connections. Connect one cable to J11 in the back of the adapter, and thread the remaining two cables through the second I/O slot opening to the side of the adapter card. Connect these cables to J3 and J5.

Step 7 Connect the shield of the cable with the PCX-covering (1 screw in the seat of the adapter)

This completes the PMAC adapter card installation.

☞ **Note**

If the the firmware PROM was changed, it may be necessary to change the setting of jumper E51 to a non-default state to communicate with the PMAC card during code down load procedures.

3Com EtherLink III Adapter Card Installation

3Com EtherLink III Parallel Tasking Ethernet adapters support the 16-bit ISA and MCA system bus architectures. See Figure 5-2. Follow the instructions for ISA or MCA installations.

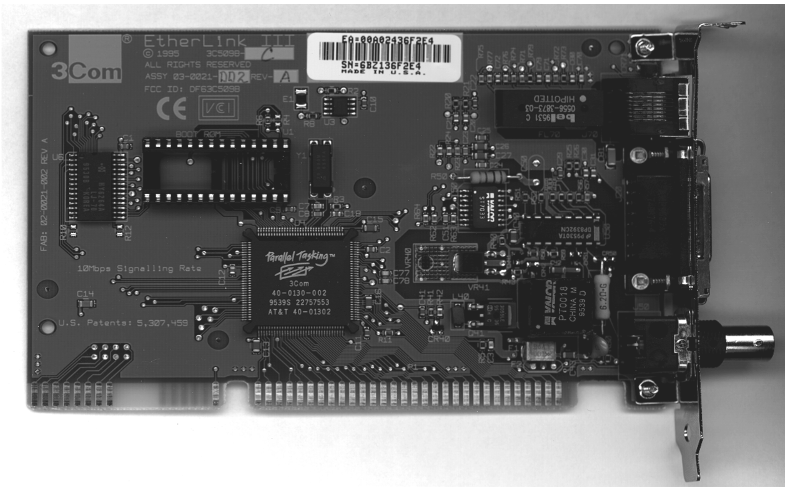


Figure 5-2 3Com EtherLink III Adapter (ISA)

ISA installation:

Follow the steps to install the adapter in an ISA or ISA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller's housing and locate an empty ISA slot to insert the 3Com EtherLink III adapter. Loosen the connector screw in the back to allow a network cable connection to the adapter.

Step 4 Remove the adapter from its protective wrapping and insert it into the ISA slot. Secure the screw to seat the adapter. Ensure that the adapter card backplate is flush with the controller backplane.

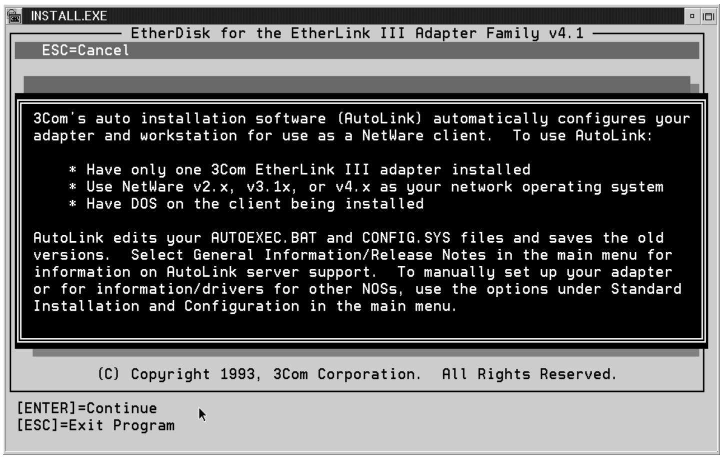
Step 5 Close and secure the AMU controller housing and attach the network cable to the adapter.

Step 6 Boot the AMU controller. Ensure that OS/2 is loaded and no network software is installed or configured. Alternately, boot with a DOS boot disk.

Step 7 Insert the 3Com EtherDisk diskette into drive A: and select an OS/2 window.

At the prompt, type `A:\install` and press **ENTER**.

The EtherDisk for the EtherLink III Adapter Family appears. See Figure 5-3.

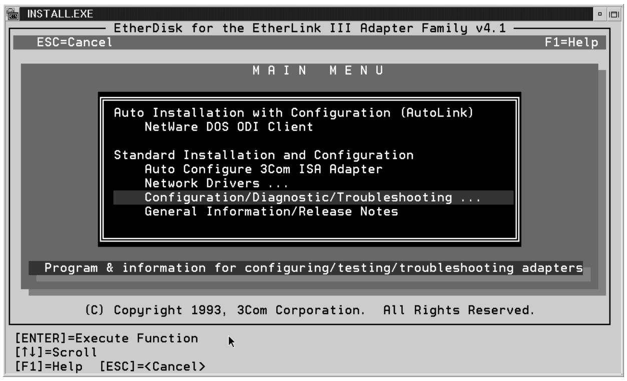


```
INSTALL.EXE
EtherDisk for the EtherLink III Adapter Family v4.1
  ESC=Cancel

3Com's auto installation software (AutoLink) automatically configures your
adapter and workstation for use as a NetWare client.  To use AutoLink:

    * Have only one 3Com EtherLink III adapter installed
    * Use NetWare v2.x, v3.1x, or v4.x as your network operating system
    * Have DOS on the client being installed

AutoLink edits your AUTOEXEC.BAT and CONFIG.SYS files and saves the old
versions.  Select General Information/Release Notes in the main menu for
information on AutoLink server support.  To manually set up your adapter
or for information/drivers for other NOSs, use the options under Standard
Installation and Configuration in the main menu.

        (C) Copyright 1993, 3Com Corporation.  All Rights Reserved.

[ENTER]=Continue
[ESC]=Exit Program
```

Figure 5-3 EtherDisk for the EtherLink III Adapter Family Screen

Step 8 Press **<ENTER>** to display the MAIN MENU. The MAIN MENU displays options for an **Auto Installation with Configuration (AutoLink)** and a **Standard Installation and Configuration**.

The MAIN MENU screen appears. Refer to Figure 5-4 on page 5-19.

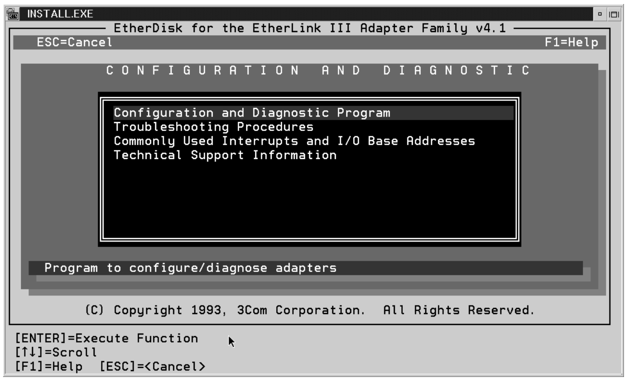


```
INSTALL.EXE
EtherDisk for the EtherLink III Adapter Family v4.1
ESC=Cancel                                             F1=Help
                          M A I N   M E N U

        Auto Installation with Configuration (AutoLink)
            NetWare DOS ODI Client

        Standard Installation and Configuration
            Auto Configure 3Com ISA Adapter
            Network Drivers ...
            Configuration/Diagnostic/Troubleshooting ...
            General Information/Release Notes

  Program & information for configuring/testing/troubleshooting adapters

         (C) Copyright 1993, 3Com Corporation.  All Rights Reserved.
[ENTER]=Execute Function
[↑↓]=Scroll
[F1]=Help  [ESC]=<Cancel>
```

Figure 5-4 MAIN MENU Screen

Step 9 Under the **Standard Installation and Configuration** option, use the arrow keys to select and highlight **Configuration/Diagnostic/Troubleshooting...** . Press **ENTER**.

The CONFIGURATION AND DIAGNOSTIC screen appears. See Figure 5-5.

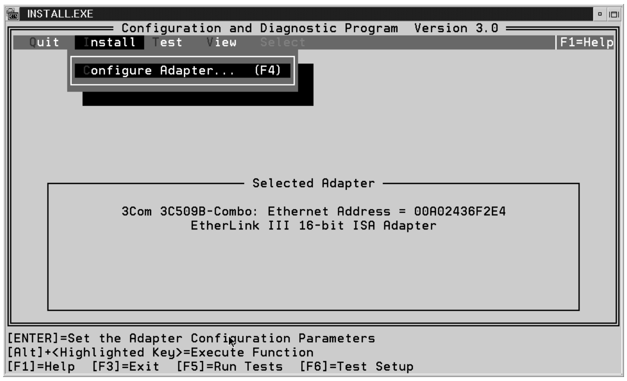


```
INSTALL.EXE
EtherDisk for the EtherLink III Adapter Family v4.1
ESC=Cancel                                             F1=Help
          C O N F I G U R A T I O N   A N D   D I A G N O S T I C

        Configuration and Diagnostic Program
        Troubleshooting Procedures
        Commonly Used Interrupts and I/O Base Addresses
        Technical Support Information

  Program to configure/diagnose adapters

         (C) Copyright 1993, 3Com Corporation.  All Rights Reserved.
[ENTER]=Execute Function
[↑↓]=Scroll
[F1]=Help  [ESC]=<Cancel>
```

Figure 5-5 CONFIGURATION AND DIAGNOSTIC Screen

Step 10 Select *Configuration and Diagnostic Program* and press **<ENTER>**.

The Configuration and Diagnostic Program screen appears. Refer to Figure 5-6 on page 5-20.

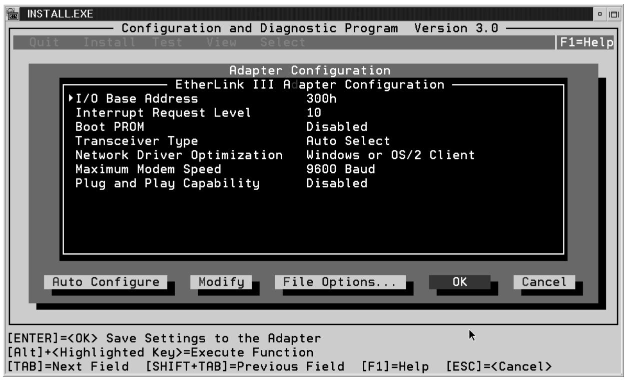


```
Configuration and Diagnostic Program  Version 3.0

Selected Adapter

3Com 3C509B-Combo: Ethernet Address = 00A02436F2E4
EtherLink III 16-bit ISA Adapter

[ENTER]=Set the Adapter Configuration Parameters
[Alt]+<Highlighted Key>=Execute Function
[F1]=Help  [F3]=Exit  [F5]=Run Tests  [F6]=Test Setup
```

Figure 5-6 Configuration and Diagnostic Program Screen

Step 11 Select *Configure Adapter...* from the *Install* action bar menu and press **<ENTER>**.

The Adapter Configuration screen appears. See Figure 5-7.



```
Configuration and Diagnostic Program  Version 3.0

Adapter Configuration
EtherLink III Adapter Configuration
I/O Base Address               300h
Interrupt Request Level        10
Boot PROM                      Disabled
Transceiver Type               Auto Select
Network Driver Optimization    Windows or OS/2 Client
Maximum Modem Speed            9600 Baud
Plug and Play Capability       Disabled

[ENTER]=<OK> Save Settings to the Adapter
[Alt]+<Highlighted Key>=Execute Function
[TAB]=Next Field  [SHIFT+TAB]=Previous Field  [F1]=Help  [ESC]=<Cancel>
```

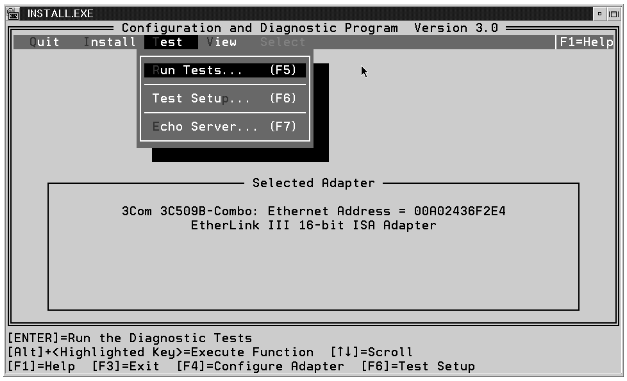
Figure 5-7 Adapter Configuration Screen

Step 12 Accept or modify configuration values. Then select and press the **OK** push-button.

- I/O Base address (see Table 5-2 ff.)
- Interrupt request level (see Table 5-2 ff.)
- Boot PROM: Disabled
- Transceiver Type: depended from used cable (RJ45, AUX or Coax but **never Autoselect)**
- Network Driver Optimization: Windows or OS/2 Client
- Maximum modem speed 9600 Baud
- Plug and Play Cabability: Disabled

The configuration values are loaded to the adapter. If another device has the selected IRQ already configured, the program may display an error message to notify of the conflict. In such event, select a different IRQ level and retry again.

The Configuration and Diagnostic Program screen appears. Refer to Figure 5-8 on page 5-21.

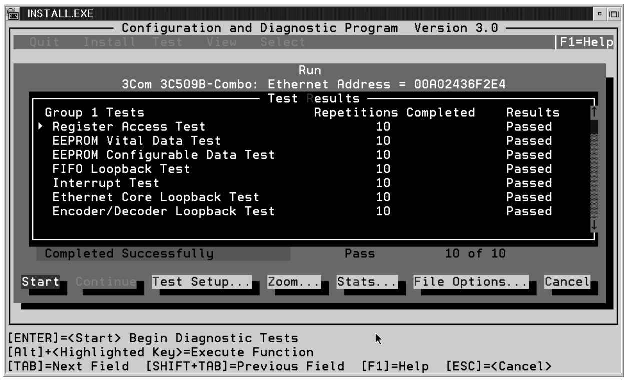


```
3Com 3C509B-Combo: Ethernet Address = 00A02436F2E4
        EtherLink III 16-bit ISA Adapter

[ENTER]=Run the Diagnostic Tests
[Alt]+<Highlighted Key>=Execute Function  [↑↓]=Scroll
[F1]=Help  [F3]=Exit  [F4]=Configure Adapter  [F6]=Test Setup
```

Figure 5-8 Configuration and Diagnostic Program Screen

Step 13 Select *Run Tests...* from the *Test* action bar menu and press **<ENTER>**.

The Run screen appears. See Figure 5-7.



```
Configuration and Diagnostic Program  Version 3.0
                                 Run
          3Com 3C509B-Combo: Ethernet Address = 00A02436F2E4
                           Test Results
  Group 1 Tests                       Repetitions Completed    Results
  ▸ Register Access Test                      10               Passed
    EEPROM Vital Data Test                    10               Passed
    EEPROM Configurable Data Test             10               Passed
    FIFO Loopback Test                        10               Passed
    Interrupt Test                            10               Passed
    Ethernet Core Loopback Test               10               Passed
    Encoder/Decoder Loopback Test             10               Passed

  Completed Successfully             Pass          10 of 10

[ENTER]=<Start> Begin Diagnostic Tests
[Alt]+<Highlighted Key>=Execute Function
[TAB]=Next Field  [SHIFT+TAB]=Previous Field  [F1]=Help  [ESC]=<Cancel>
```

Figure 5-9 Run Screen

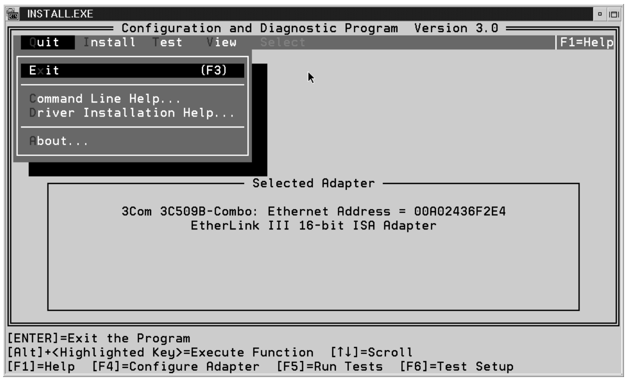
☞ Note

If the Interrupt test fails, an IRQ conflict occurred. Reconfigure the adapter for a different IRQ selection and rerun the test.

Step 14 Select and press the **Start** push-button to test the adapter.

Step 15 Select and press the **Cancel** push-button to return to the Configuration and Diagnostic Program screen.

The Configuration and Diagnostic Program screen appears. Refer to Figure 5-10 on page 5-22.



```
Configuration and Diagnostic Program  Version 3.0
                         Selected Adapter

          3Com 3C509B-Combo: Ethernet Address = 00A02436F2E4
                    EtherLink III 16-bit ISA Adapter

[ENTER]=Exit the Program
[Alt]+<Highlighted Key>=Execute Function  [↑↓]=Scroll
[F1]=Help  [F4]=Configure Adapter  [F5]=Run Tests  [F6]=Test Setup
```

Figure 5-10 Configuration and Diagnostic Program Screen

Step 16 Select *Exit* from the *Quit* action bar menu and exit from the installation program.

This completes the ISA hardware configuration for the Ethernet adapter and network cable connection.

MCA Installation

Follow the steps to install the adapter in a MCA or MCA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller's housing and locate an empty MCA slot. Loosen the connector screw in the back to allow a network cable connection to the adapter.

Step 4 Remove the adapter from its protective wrapping and insert it into the MCA slot. Secure the screw to seat the adapter. Ensure that the adapter card backplate is flush with the controller backplane.

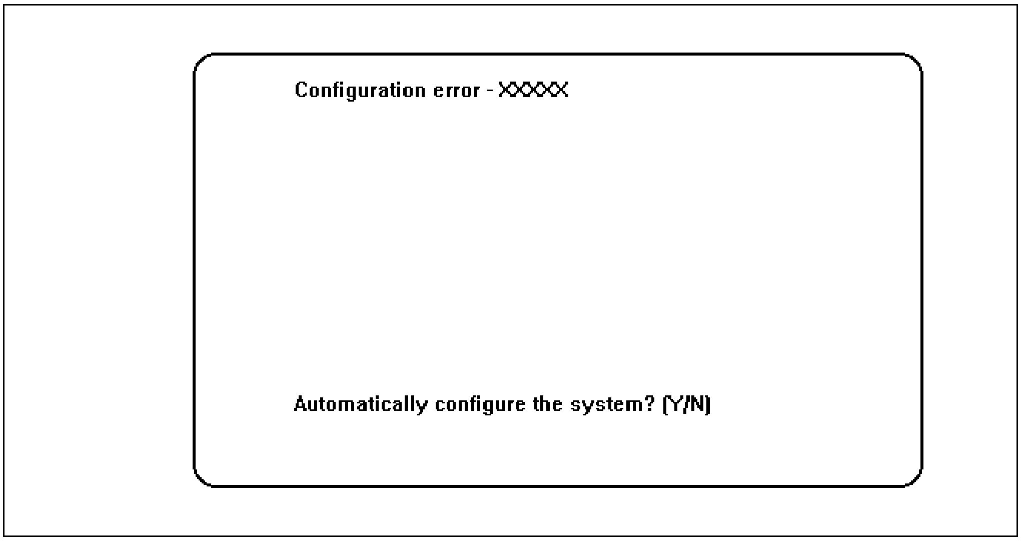
Step 5 Close and secure the AMU controller housing and attach the network cable to the adapter.

Step 6 Boot the AMU controller.

The Configuration error screen appears. Refer to Figure 5-11 on page 5-24.

☞ **Note**

During bootup the controller displays the error message: *00165 - Adapter Configuration Error* and requests that the Micro Channel system programs be loaded.



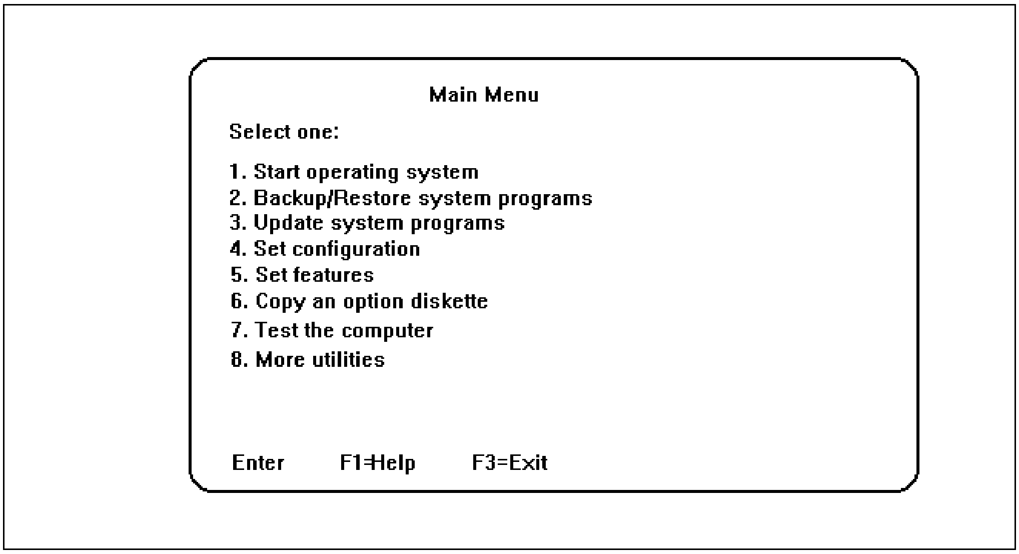
Configuration error - XXXXX

Automatically configure the system? (Y/N)

Figure 5-11 Configuration error

Step 7 Type **N**. No automatic configuration is performed.

The Main Menu appears. See Figure 5-12.



Main Menu

Select one:

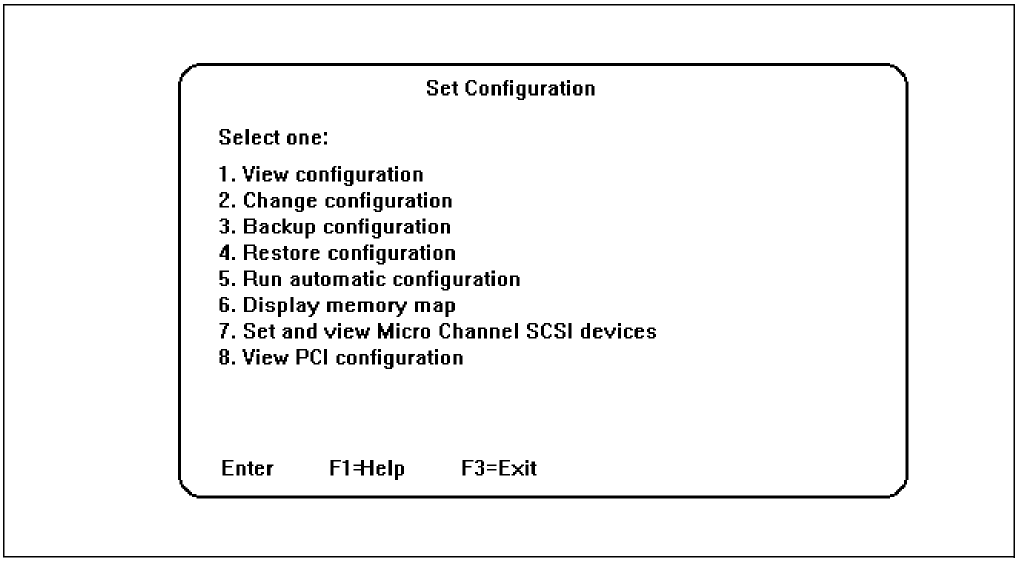
1. Start operating system
2. Backup/Restore system programs
3. Update system programs
4. Set configuration
5. Set features
6. Copy an option diskette
7. Test the computer
8. More utilities

Figure 5-12 Main Menu

Step 8 Insert the 3Com EtherDisk diskette into drive A: and select option **6** to copy an option diskette. Press **ENTER** to continue.

Step 9 After the option diskette is copied, option **4** is selected from the Main Menu. Press **ENTER**.

The Set Configuration Menu appears. See Figure 5-13.



Set Configuration

Select one:

1. View configuration
2. Change configuration
3. Backup configuration
4. Restore configuration
5. Run automatic configuration
6. Display memory map
7. Set and view Micro Channel SCSI devices
8. View PCI configuration

Enter F1=Help F3=Exit

Figure 5-13 Set Configuration

Step 10 Select option **2** to change and view the configuration. Press **ENTER**.

Step 11 Scrolling the display with the **Page Down** key displays the installed 3Com network adapter parameters.

Step 12 View the Transceiver type entry and press **F5** to toggle the connection type (e.g. AUI, BNC, or RJ-45) for the attached network connection.

Step 13 Press **F10** to save your selection.

Step 14 Press **F3** several times to exit the reference program.

The installed adapter may now be tested to verify the configuration and operation. Select the appropriate options to test the computer.

☞ Note

The operating system can only be started if already installed according to *Chapter 6- Operating System Installation*.

Step 15 When prompted, press **<ENTER>** to restart the operating system.

This completes the MCA configuration for the Ethernet adapter and network cable connection.

3Com TokenLink III Adapter Card Installation

3Com TokenLink III Parallel Tasking Token-Ring adapters support the ISA system bus architecture. See Figure 5-14.

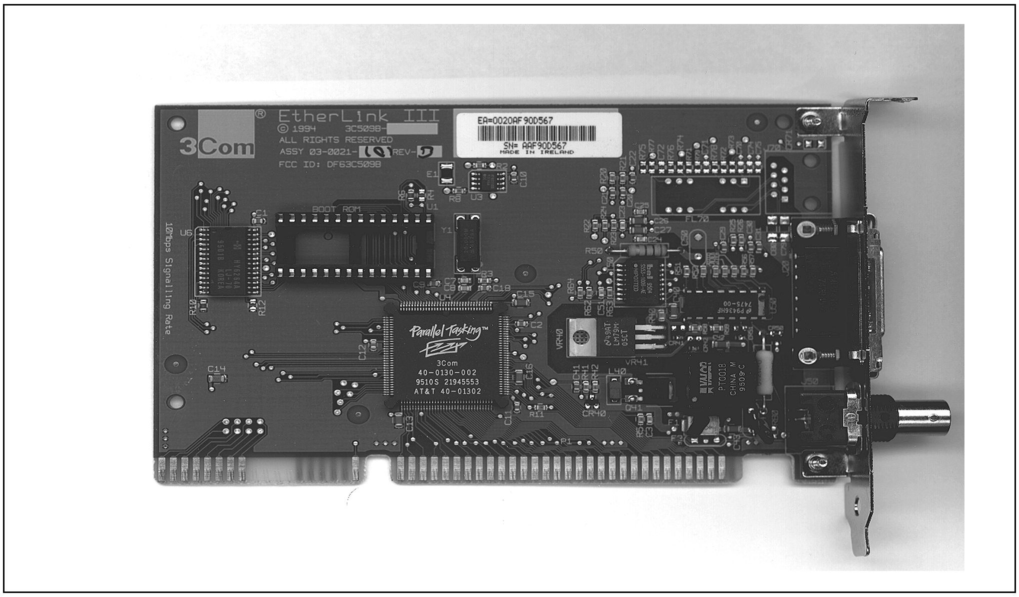


Figure 5-14 3Com TokenLink III Adapter (ISA)

Follow the steps to install the adapter in an ISA or ISA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty ISA slot. Loosen the connector screw in the back to allow a network cable connection to the adapter.

Step 4 Remove the adapter from its protective wrapping and insert it into the ISA slot. Secure the screw to seat the adapter. Ensure that the adapter card backplate is flush with the controller backplane.

Step 5 Close and secure the AMU controller housing and attach the network cable to the adapter.

Step 6 Boot the AMU controller. Ensure that OS/2 is loaded and network software is not installed and configured. Alternately, boot with a DOS boot disk.

Step 7 Insert the 3Com TokenDisk diskette into drive A: and select an OS/2 window.

At the prompt, type `A:\install` and press **ENTER**.

Step 8 Press **<ENTER>** to display the MAIN MENU. The MAIN MENU displays options for an **Auto Installation with Configuration (AutoLink)** and a **Standard Installation and Configuration**.

Step 9 Under the **Standard Installation and Configuration** option, use the arrow keys to select and highlight **Configuration/Diagnostic/Troubleshooting...** . Press **ENTER**.

Step 10 Select *Configuration and Diagnostic Program* and press **<ENTER>**.

Step 11 Select *Configure Adapter...* from the *Install* action bar menu and press **<ENTER>**.

Step 12 Accept or modify configuration values. Then select and press the **OK** push-button.

The configuration values are loaded to the adapter. If another device has the selected IRQ already configured, the program may display an error message to notify of the conflict. In such event, select a different IRQ level and retry agai

Step 13 Select *Run Tests...* from the *Test* action bar menu and press **<ENTER>**.

☞ **Note**

If the Timer test fails, an IRQ conflict occurred. Reconfigure the adapter for a different IRQ selection and rerun the test. If any of the Shared RAM tests fail, reconfigure the adapter for a different BIOS \ MMIO Base Address or Shared RAM Address Range. The Memory Mode may have to be changed to 8 bit.

Step 14 Select and press the **Start** push-button to test the adapter.

The *Open Adapter for Ring Operation Test*, *Ring Operation Test*, and *Close Adapter Test* will pass only if the adapter is connected to a Multi-Access-Station (MAU).

Step 15 Select and press the **Cancel** push-button to return to the Diagnostic and Manual Configuration Program screen.

Step 16 Select *Exit* from the *Quit* action bar menu and exit from the installation program.

This completes the hardware configuration for the Token-Ring adapter and network cable connection.

IBM Token-Ring Network 16/4 Adapter/A Installation

The IBM Token-Ring Network 16/4 Adapter/A provides support for MCA and ISA controllers.

ISA Installation

Follow the steps to install the adapter in an ISA or ISA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty ISA slot. Loosen the connector screw in the back to allow a network cable connection to the adapter.

Step 4 Remove the adapter from its protective wrapping and set the adapter's jumper/switch configuration as described in the adapter documentation. The default adapter configuration is as follows:

- IRQ: 10
- Base I/O Address: 086A0
- Wait cycle: OFF
- Adapter mode: ON
- RPL: OFF
- DMA channel: OFF
- Data rate: 16 MBps

Step 5 Insert the adapter card into the ISA slot. Secure the screw to seat the adapter. Ensure that the adapter card backplate is flush with the controller backplane.

Step 6 Close and secure the AMU controller housing and attach the network cable to the adapter.

This completes the hardware configuration for the IBM Token-Ring 16/4 Adapter/A and network cable connection.

MCA Installation

Follow the steps to install the adapter in a MCA, or MCA AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty MCA slot. Loosen the connector screw in the back to allow a network cable connection.

Step 4 Remove the adapter from its protective wrapping and insert it into the MCA slot. Secure the screw to seat the adapter. Ensure that the adapter card backplate is flush with the controller backplane.

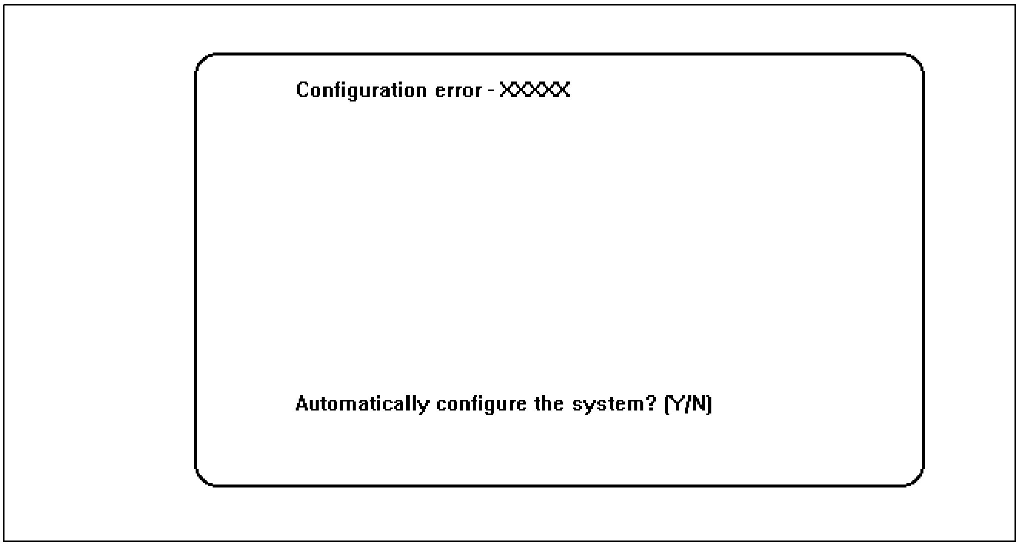
☞ **Note**

During bootup, the controller displays the error message: *00165 - Adapter Configuration Error* and requests that the MCA system programs be loaded.

Step 5 Close and secure the AMU controller housing and attach the network cable to the adapter.

Step 6 Boot the AMU controller.

The system program displays the Configuration error screen. See Figure 5-15.

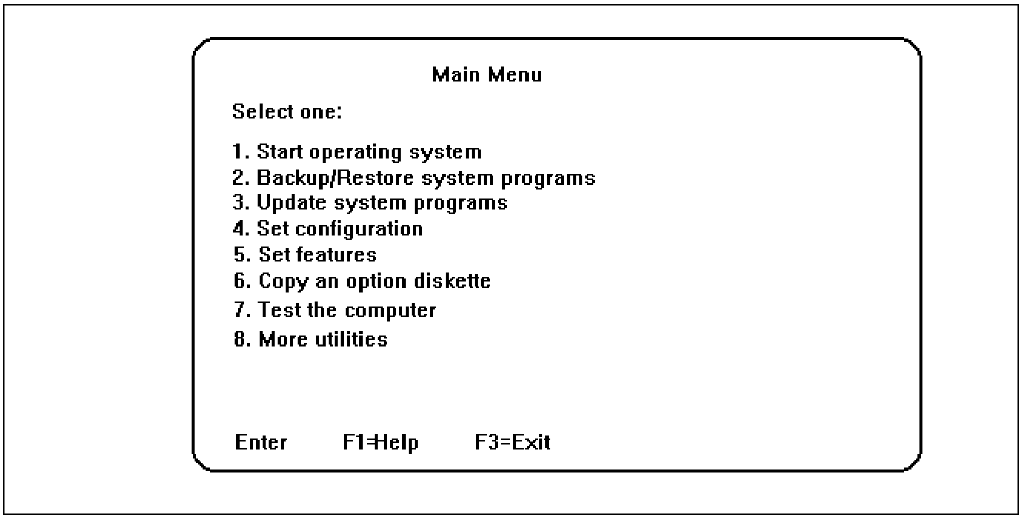


```
Configuration error - XXXXX

Automatically configure the system? (Y/N)
```

Figure 5-15 Configuration error

Step 7 Type **N**. No automatic configuration is performed.

The Main Menu appears. Refer to Figure 5-16 on page 5-31.



```
                    Main Menu
Select one:

1. Start operating system
2. Backup/Restore system programs
3. Update system programs
4. Set configuration
5. Set features
6. Copy an option diskette
7. Test the computer
8. More utilities



Enter     F1=Help     F3=Exit
```

Figure 5-16 Main Menu

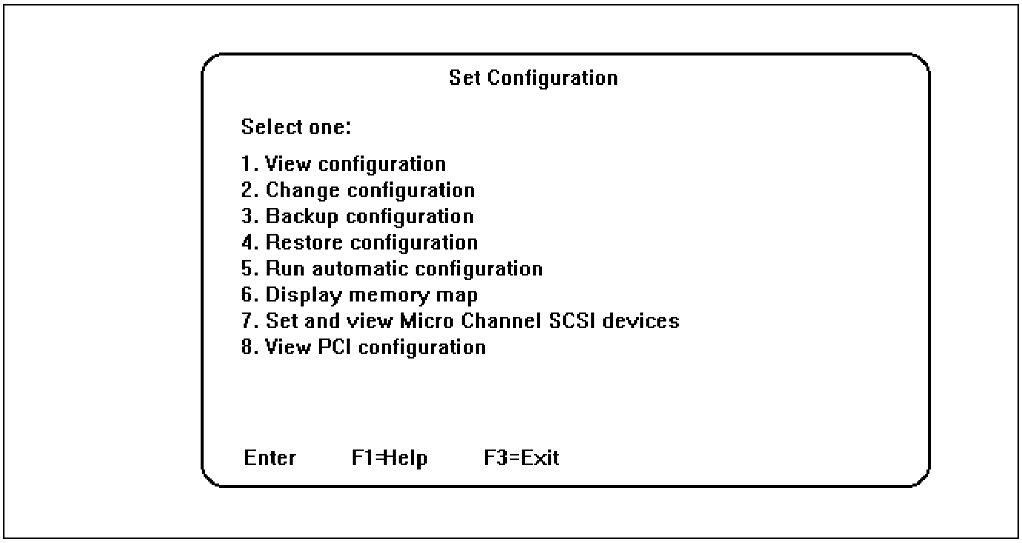
Note

If the adapter is defined in the system, copying of the option diskette is not required.

Step 8 Insert the adapter's option diskette into drive A: and select option **6**. Press **ENTER** to continue.

Step 9 After the option diskette is copied, option **4** is selected from the Main Menu to set the configuration. Press **ENTER**.

The Set Configuration screen appears. See Figure 5-17.



```
                 Set Configuration

Select one:

1. View configuration
2. Change configuration
3. Backup configuration
4. Restore configuration
5. Run automatic configuration
6. Display memory map
7. Set and view Micro Channel SCSI devices
8. View PCI configuration



Enter     F1=Help     F3=Exit
```

Figure 5-17 Set Configuration

Step 10 Select option **2** to change and view the configuration. Press **ENTER**.

Step 11 Scrolling the display with the **Page Down** key displays the installed Token-Ring MC adapter parameters.

Accept or change the parameter settings.

Note

If an Ethernet adapter is also installed, set the adapter selection to ***Alternate***. The Ethernet adapter requires the **primary** adapter selection.

Step 12 Press **F10** to save your selection.

Step 13 Press **F3** several times to exit the reference program.

Test the adapter to verify the configuration and operation. Select the appropriate options to test the computer.

Step 14 When prompted, press **ENTER** to restart the operating system.

Note

The operating system can only be started if already installed according to *Chapter 6, Operating System Installation.*

This completes the installation for the IBM Token-Ring 16/4 Adapter/A and network cable connection.

IBM Auto 16/4 Token-Ring Adapter Installation

The IBM Auto 16/4 Token-Ring adapter provides support for MCA and ISA controllers. Refer to Figure 5-18 on page 5-33.

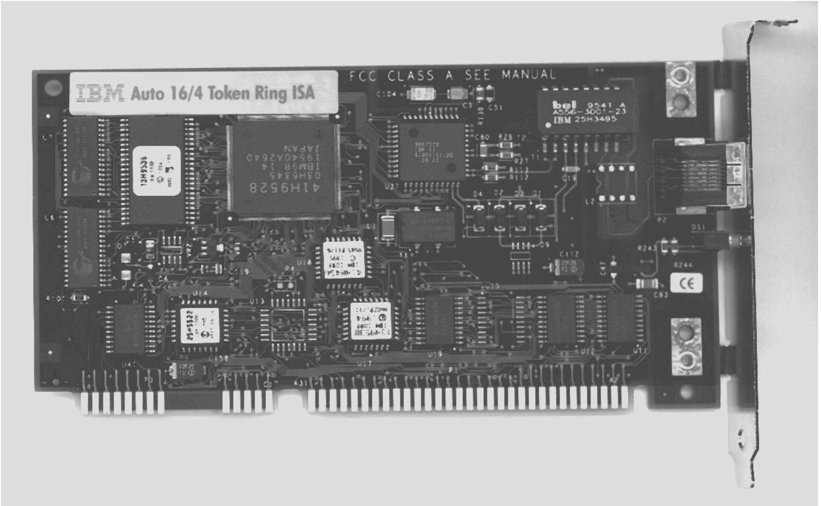


Figure 5-18 IBM Auto 16/4 Token-Ring Adapter (ISA)

ISA Installation

Follow the steps to install the adapter in an ISA or ISA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty ISA slot. Loosen the connector screw in the back to allow a network cable connection.

Step 4 Remove the adapter from its protective wrapping and insert it into the ISA slot. Ensure that the adapter card backplate is flush with the controller backplane.

Step 5 Secure the screw to seat the adapter.

Step 6 Close and secure the AMU controller housing and attach the network cable.

Step 7 Insert the *LANAID* software diskette 1 into drive A: and boot the AMU controller.

Step 8 Follow the instructions of the Startup Menu to configure the adapter.

Step 9 Select a standard configuration and make appropriate selections for the:

- interrupt
- I/O Address
- ROM Address
- RAM Address
- RAM size
- data rate (4 or 16 MBps) configuration values

Press the **Suggest** push-button. The *LANAID* program determines the configuration values. Make any necessary changes.

☞ **Note**
Enable the Auto Sense selection to sense the appropriate network data rate and disable the Remote IPL feature.

Step 10 Select and press the **Store** push-button to save the configuration values to the adapter card.

Step 11 Select and press the **Done** push-button to exit from the configuration menu.

☞ **Note**
The adapter test fails if the network cable is not attached to the operational network.

Step 12 Perform suggested optional adapter tests to ensure that the adapter card is functioning properly.

Step 13 Exit the *LANAID* program.

This completes the IBM Auto 16/4 Token-Ring ISA adapter and network cable connection.

MCA Installation

Follow the steps to install the adapter in a MCA or MCA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty MCA slot. Loosen the connector screw in the back to allow a network cable connection.

Step 4 Remove the adapter from its protective wrapping and insert it into the MCA slot. Secure the screw to seat the adapter.

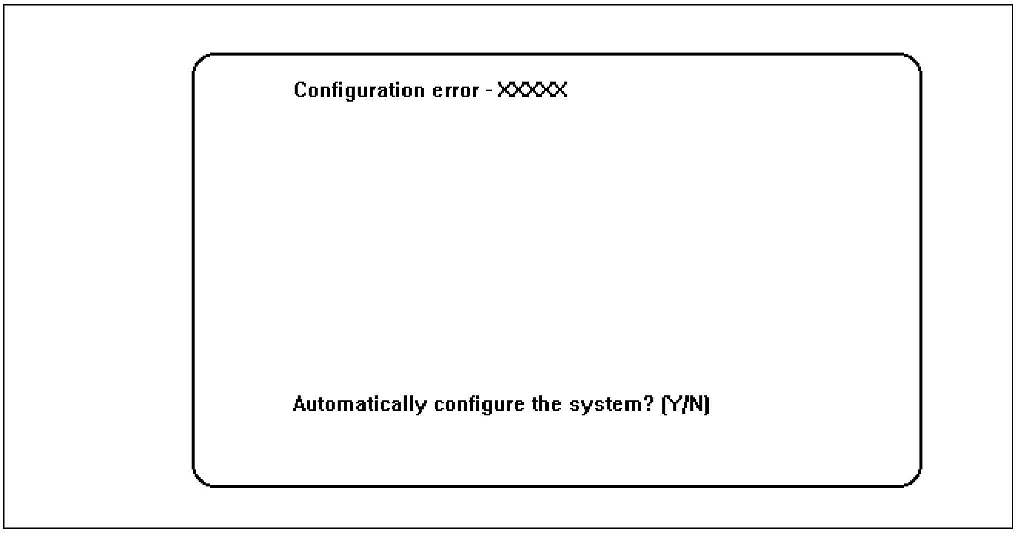
Ensure that the adapter card backplate is flush with the controller backplane.

Step 5 Close and secure the AMU controller housing and attach the network cable to the adapter.

☞ **Note**
During bootup, the controller displays the error message: *00165 - Adapter Configuration Error* and requests that the system programs be loaded.

Step 6 Boot the AMU controller.

The Configuration error screen appears. See Figure 5-19.

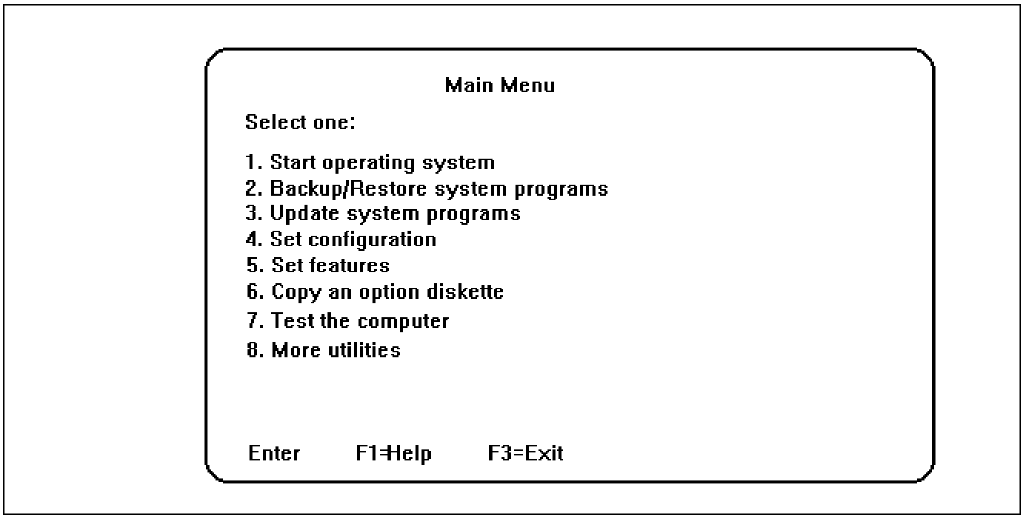


```
Configuration error - XXXXX


Automatically configure the system? (Y/N)
```

Figure 5-19 Configuration error

Step 7 Type **N**. No automatic configuration is performed.

The system program Main Menu appears. See Figure 5-20 on page 5-35.



```
                    Main Menu
Select one:

1. Start operating system
2. Backup/Restore system programs
3. Update system programs
4. Set configuration
5. Set features
6. Copy an option diskette
7. Test the computer
8. More utilities


Enter      F1=Help      F3=Exit
```

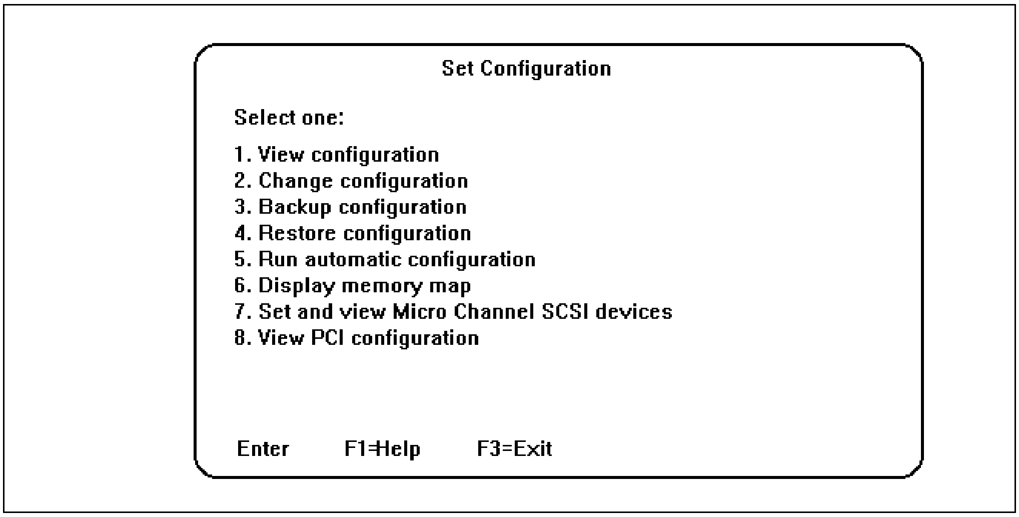
Figure 5-20 Main Menu

☞ **Note**
If the adapter is defined in the system, copying of the option diskette is not required.

Step 8 Insert the adapter option diskette into drive A: and select option **6**. Press **ENTER** to continue.

Step 9 Once the option diskette is copied, select option **4** from the Main Menu. Press **ENTER.**

The Set Configuration screen appears. See Figure 5-21.



```
                         Set Configuration

Select one:

1. View configuration
2. Change configuration
3. Backup configuration
4. Restore configuration
5. Run automatic configuration
6. Display memory map
7. Set and view Micro Channel SCSI devices
8. View PCI configuration



 Enter       F1=Help       F3=Exit
```

Figure 5-21 Set Configuration

Step 10 Select option **2** to change and view the configuration. Press **ENTER**.

Step 11 Scrolling the display with the **Page Down** key displays the installed Token-Ring MC adapter parameters. Accept or change the parameter settings as shown in the following example:

☞ **Note**
If an Ethernet adapter is also installed, set the adapter selection to ***Alternate***.

- Primary/Alternate: Primary
- Adapter data rate: 16 Mbps (or as needed)
- Auto-sense: On
- ROM address: CC000-CDFFF
- RAM size: 16 KB/D8000-D8FFF
- Interrupt: 2
- RPL: Disable

☞ **Note**
The operating system can only be started if already installed according to *Chapter 6 - Operating System Installation*.

Step 12 Press **F10** to save your selection.

Step 13 Press **F3** several times to exit the reference program.

Step 14 Test to verify the configuration and operation. Select the appropriate options to test the computer.

Step 15 When prompted, press **ENTER** to restart the operating system..

This completes the hardware configuration for the IBM Auto 16/4 Token-Ring MC adapter and network cable connection.

3Com FDDILink 32 bit PCI Network Adapter Card Installation (SAS)

The 3Com FDDILink PCI fiber-optic Single-Attachment-Station (SAS) adapter provides Fiber Distributed Data Interface (FDDI) network support. See Figure 5-22.

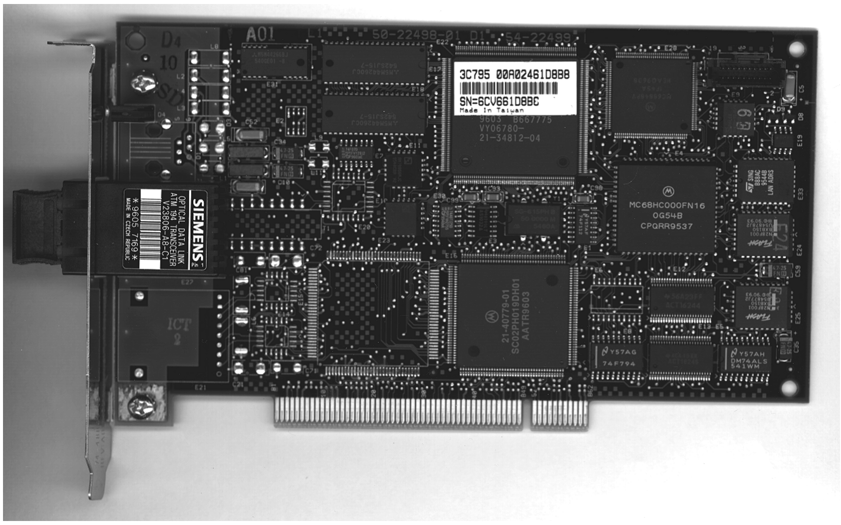


Figure 5-22 3Com FDDILink 32 bit PCI network adapter (SAS)

Note

Select the controller setup utility at boot time to select a PCI slot IRQ assignment, enable bus mastering, and set the latency timer value to 88hex.

The adapter plugs into a single PCI slot and requires bus mastering support enabled and level-triggered IRQ support.

Follow the steps to install the adapter in an ISA or ISA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller’s housing and locate an empty PCI slot to insert the 3Com FDDILink PCI adapter. Loosen the connector screw in the back to allow a network cable connection to the adapter.

Step 4 Remove the adapter from its protective wrapping and insert it into the PCI slot. Secure the screw to seat the adapter. Ensure that the adapter card backplate is flush with the controller backplane.

Step 5 Close and secure the AMU controller housing and attach the network cable to the adapter.

Step 6 Boot the AMU controller and observe the adapter LED. Within the first 10 seconds verify the following:

- The adapter LED flashes green three times for approximately 1 second.
- The LED turns off when the adapter passes the power-up self-test.
- The LED remains lit (amber), if a power-up self-test failure occurred.
- The LED lights green, if a physical connection to the network is operational.

☞ **Note**
MPTS/LAPS may already provide 3Com FDDILink support. If so, select the FDDILink adapter from the MPTS/LAPS adapter selection list. If support is not selectable, install the driver, from the 3Com FDDIDisk. The drivers are located in the A:\NDIS2\OS2 directory.

Step 7 If the power-up self-test completed successfully, the adapter drivers may be loaded with the OS/2 Warp Connect Multi-Protocol-Transport-Services (MPTS) utility, or Lan-Adapter-and-Protocol-Support (LAPS) utility.

This completes the PCI hardware configuration for the FDDI SAS adapter and network cable connection.

3Com FDDILink 32 bit PCI Network Adapter Card Installation (DAS)

The 3Com FDDILink PCI fiber-optic Dual-Attachment-Station (DAS) adapter provides Fiber Distributed Data Interface (FDDI) network support. DAS offers two attachments to the FDDI network, supporting a second (counter-rotating) ring. See Figure 5-23.

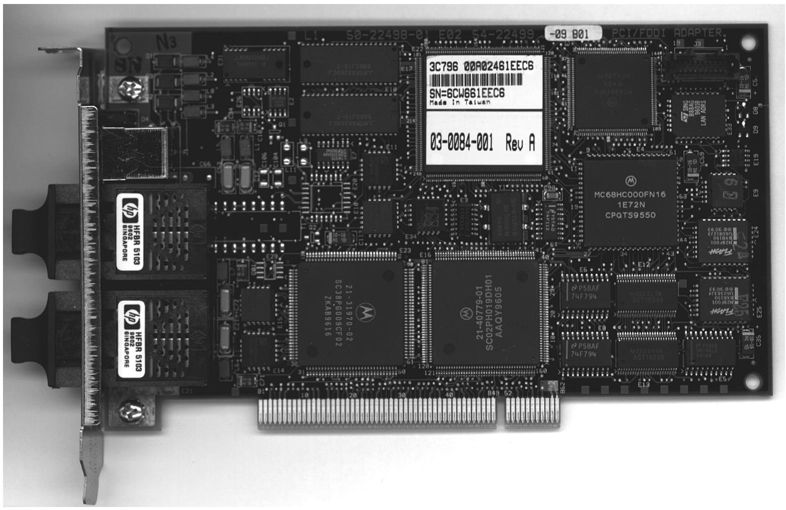


Figure 5-23 3Com FDDILink 32 bit PCI network Adapter (DAS)

Note

Select the controller setup utility at boot time to select a PCI slot IRQ assignment, enable bus mastering, and set the latency timer value to 88hex.

The adapter plugs into a single PCI slot and requires bus mastering support enabled and level-triggered IRQ support.

Follow the steps to install the adapter in an ISA or ISA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller’s housing and locate an empty PCI slot to insert the 3Com FDDILink PCI adapter. Loosen the connector screw in the back to allow a network cable connection to the adapter.

Step 4 Remove the adapter from its protective wrapping and insert it into the PCI slot. Secure the screw to seat the adapter. Ensure that the adapter card backplate is flush with the controller backplane.

Step 5 Close and secure the AMU controller housing and attach the network cable to the adapter.

Step 6 Boot the AMU controller and observe the adapter LEDs. Within the first 10 seconds verify the following:

- The adapter LED flashes green three times for approximately 1 second.
- The LED turns off when the adapter passes the power-up self-test.
- The LED remains lit (amber), if a power-up self-test failure occurred.
- The LEDs light green, if a physical connection to the network is operational.

☞ **Note**

MPTS/LAPS may already provide 3Com FDDILink support. If so, select the FDDILink adapter from the MPTS/ LAPS adapter selection list. If support is not selectable, install the driver, from the 3Com FDDIDisk. The drivers are located in the A:\NDIS2\OS2 directory.

Step 7 If the power-up self-test completed successfully, the adapter drivers may be loaded with the OS/2 Warp Connect Multi-Protocol-Transport-Services (MPTS) utility, or Lan-Adapter-and-Protocol-Support (LAPS) utility.

This completes the PCI hardware configuration for the FDDI DAS adapter and network cable connection.

IIBM FDDI Fiber Base/Extended MC Adapter Card Installation

The IBM FDDI Fiber Base MC Adapter and IBM FDDI Fiber Extender MC Adapter provide Fiber Distributed Data Interface (FDDI) network support for MCA controllers. The FDDI base adapter may be installed to support the AMU controller as a Single Attachment Station (SAS) or as a Dual Attachment Station (DAS). DAS offers two attachments to the FDDI network, supporting a second (counter-rotating) ring.

If a DAS adapter is installed, ensure that the AMU controller has two adjacent MCA slots available to house the piggy-backed DAS adapter. Follow the instructions in the *Assembly Instructions* for the FDDI extender adapter to connect the extender card to the base adapter card.

Follow the steps to install the SAS/DAS adapter in a MCA or MCA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate one/two empty MCA slot(s) to insert the SAS/DAS adapter. Loosen the connector screw(s) in the back to allow a network cable connection.

Step 4 Remove the adapter(s) from the protective wrapping and insert the adapter(s) into the MCA slot(s). Secure the screw(s) to seat the adapter(s). Ensure that each adapter card backplate is flush with the controller backplane.

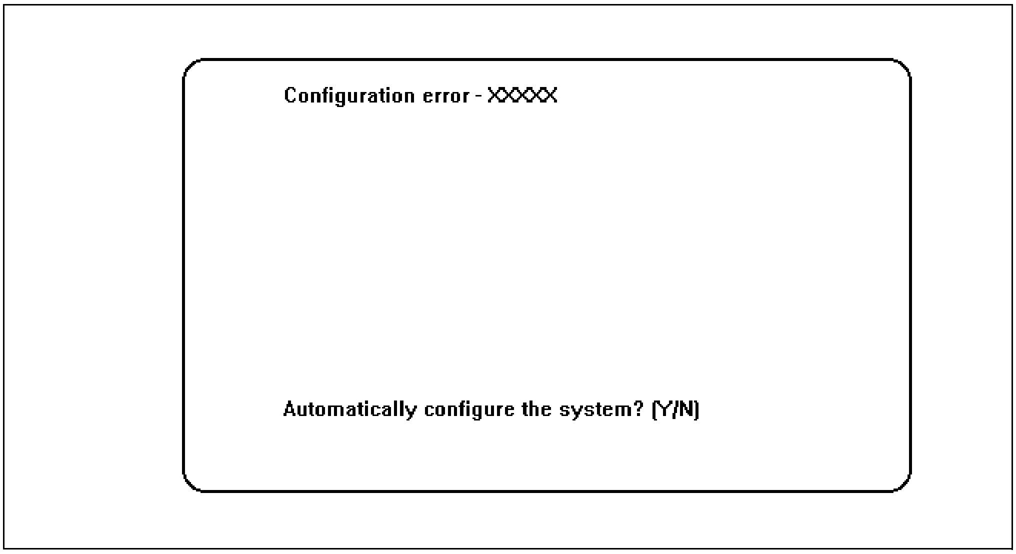
Step 5 Close and secure the AMU controller housing and attach the network cable connection.

Step 6 Boot the AMU controller.

The Configuration error screen appears. Refer to Figure 5-24 on page 5-43.

☞ **Note**

During bootup, the controller displays the error message: *00165 - Adapter Configuration Error* and requests that the system programs be loaded.

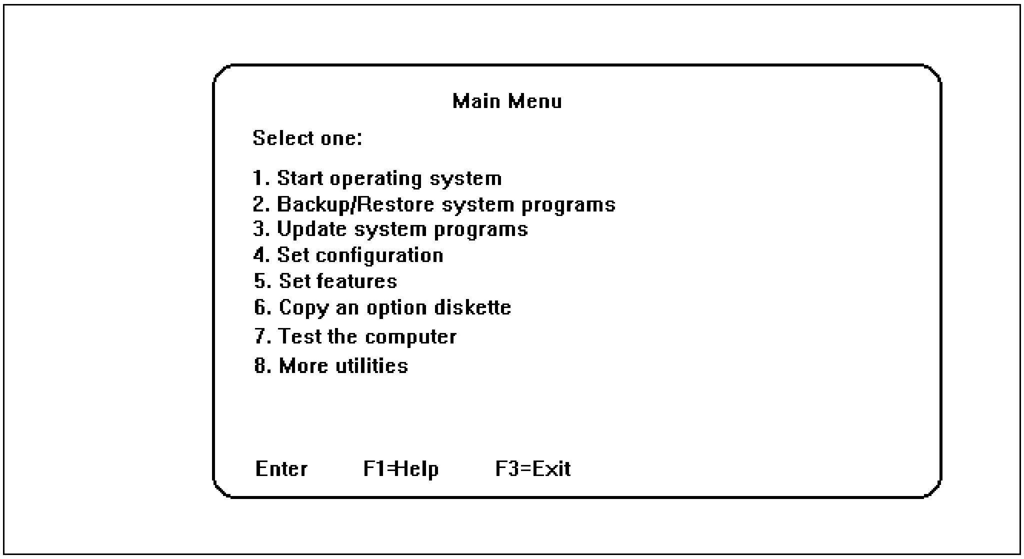


```
Configuration error - XXXXX

Automatically configure the system? (Y/N)
```

Figure 5-24 Configuration error

Step 7 Type **N**. An automatic configuration is not performed.

The system program Main Menu appears. See Figure 5-25.



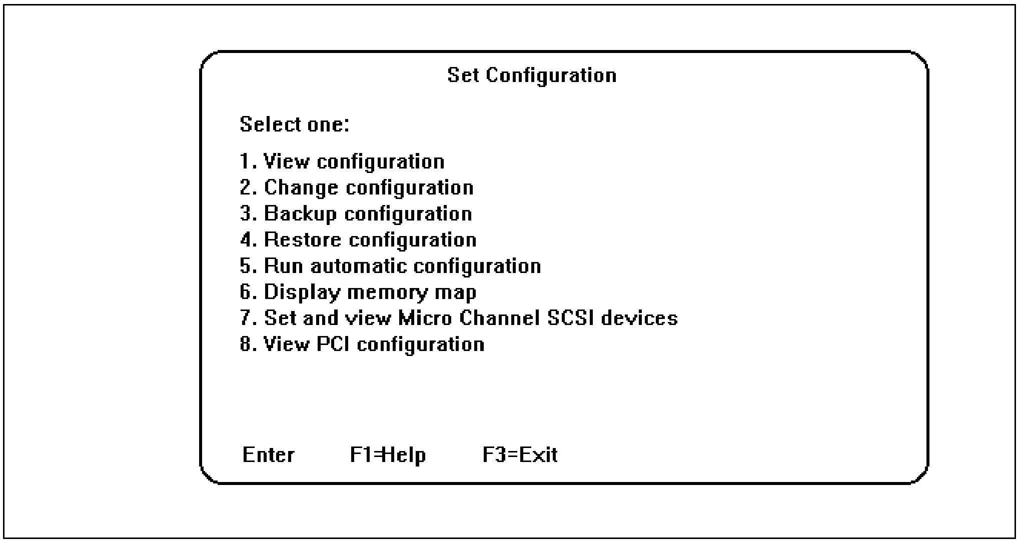
```
                 Main Menu
Select one:

1. Start operating system
2. Backup/Restore system programs
3. Update system programs
4. Set configuration
5. Set features
6. Copy an option diskette
7. Test the computer
8. More utilities


Enter      F1=Help      F3=Exit
```

Figure 5-25 Main Menu

Step 8 Insert the adapter option diskette into drive A: and select option **6**. Press **ENTER** to continue.

Step 9 After the option diskette is copied, select option **4** from the Main Menu to set the configuration. Press **ENTER**.

The Set Configuration screens appears. See Figure 5-26.



```
Set Configuration

Select one:

1. View configuration
2. Change configuration
3. Backup configuration
4. Restore configuration
5. Run automatic configuration
6. Display memory map
7. Set and view Micro Channel SCSI devices
8. View PCI configuration

Enter      F1=Help      F3=Exit
```

Figure 5-26 Set Configuration

Step 10 Select option **2** to change and view the configuration. Press **ENTER**.

Step 11 Scrolling the display with the **Page Down** key displays the installed IBM FDDI MC adapter parameters. Accept or change the parameter settings.

Step 12 Press **F10** to save your selection.

Step 13 Press **F3** several times to exit the reference program.

Step 14 Test the adapter to verify the configuration and operation. Select the appropriate options to test the computer.

Step 15 When prompted, press **ENTER** to restart the operating system.

☞ **Note**

The operating system can only be started if already installed according to *Chapter 6 - Operating System Installation*.

Step 16 After OS/2 is booted and MPTS (LAPS) support is installed, copy the network drivers to the harddisk:

a. select an OS/2 window

b. insert option diskette 1 into drive A: and type the following commands followed by **ENTER**:

```
copy A:\OS2\IBMFDX.OS2 C:\IBMCOM\MACS
copy A:\OS2\IBMFDX.NIF C:\IBMCOM\MACS
copy A:\OS2\LTE.MSG C:\IBMCOM\MACS
copy A:\OS2\LTEH.MSG C:\IBMCOM\MACS
```

Step 17 When configuring LAPS, configure the adapter for Ethernet or Token-Ring support according to the network requirements and select or do not select TCP/IP support for Token-Ring.

☞ **Note**
LAPS, APPC and TCP/IP configurations are described in *Chapter 8, Software Configuration*.

This completes the hardware configuration for the FDDI adapter and network cable connection.

IBM 3278/79 (3270) Adapter Card Installation

The IBM 3278/79 adapter (3270 emulation adapter) for 3270 emulations is a 8-bit adapter card which supports the 16-bit ISA and MCA architectures. See Figure 5-27.

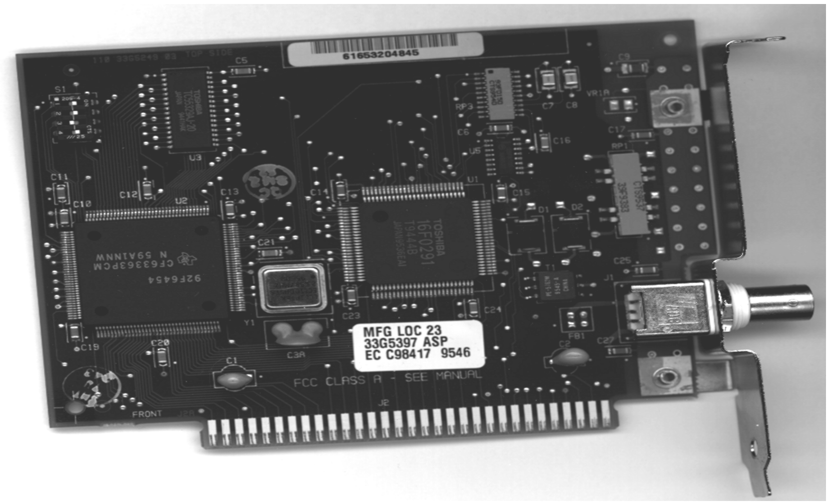


Figure 5-27 IBM 3270 Emulation Adapter

Note

IRQ 2 is redirected to IRQ 9. Do not assign or use this IRQ for VGA interrupt operations. If selectable in the AMU controller BIOS setup utility, disable the VGA interrupt setting. The adapter card uses a shared memory address range of 8 KB, starting at address 0CE00. Ensure that this range is not overlapping with other installed adapter card address ranges.

Prior to installing this adapter, ensure that the correct version, ISA or MCA, is available and the S1 micro-switch settings for the base I/O address are set. The setting depends on the number of installed 3270 cards. The adapter default settings are set for a single card installation. Table 5-16 on page 5-47 lists the correct switch setting for multiple card installations.

Table 5-16 3270 Adapter S1 Switch Setting

Switch 1	Switch 2	Description	Base I/O address
ON	ON	1st card	02Dx
OFF	ON	2nd card	06Dx
ON	OFF	3rd card	0ADx
OFF	OFF	4th card	0EDx

ISA Installation

Follow the steps to install the adapter in an ISA or ISA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty ISA slot. Loosen the connector screw in the back to allow a coaxial cable connection.

Step 4 Remove the adapter from its protective wrapping and insert it into the ISA slot. Secure the screw to seat the adapter. Ensure that the adapter card backplate is flush with the controller backplane.

Step 5 Close and secure the AMU controller housing and attach the coaxial cable to the adapter.

Step 6 Insert the appropriate 3278/79 adapter (3270 card) diagnostic diskette into drive A: and boot the AMU controller.

Step 7 When the IBM 3278/79 Emulation Adapter menu appears, follow the instructions to configure and test the adapter.

This completes the ISA hardware configuration for the coaxial 3278/79 cable connection.

MCA Installation

Follow the steps to install the adapter in an MCA or MCA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty MCA slot. Loosen the connector screw in the back to allow a coaxial cable connection.

Step 4 Remove the adapter from its protective wrapping and insert it into the MCA slot. Secure the screw to seat the adapter. Ensure that the adapter card backplate is flush with the controller backplane.

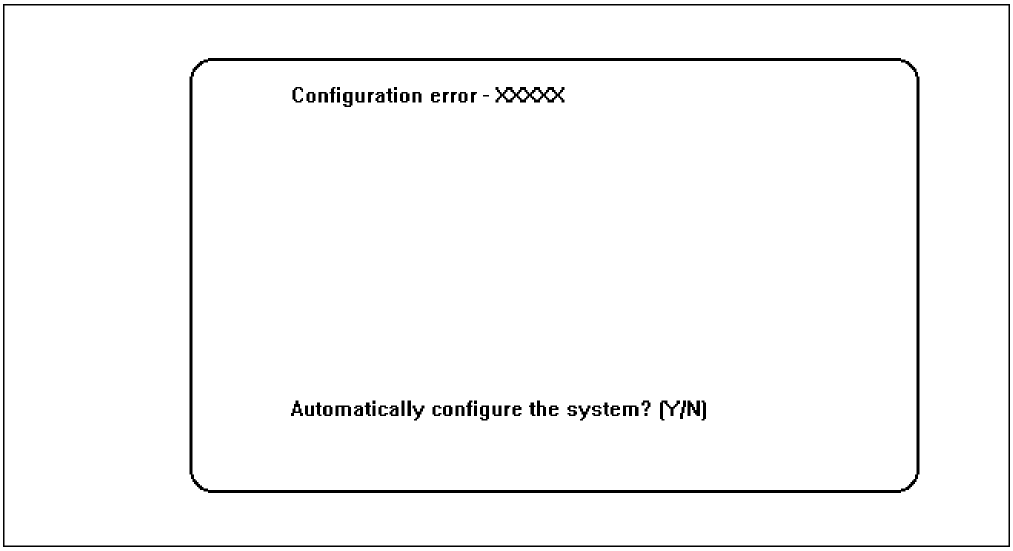
Step 5 Close and secure the AMU controller housing and attach the coaxial cable to the adapter.

Step 6 Boot the AMU controller.

The Configuration error screen appears. Refer to Figure 5-28 on page 5-49.

☞ **Note**

During bootup, the AMU controller displays the error message: *00165 - Adapter Configuration Error* and requests a system programs load.

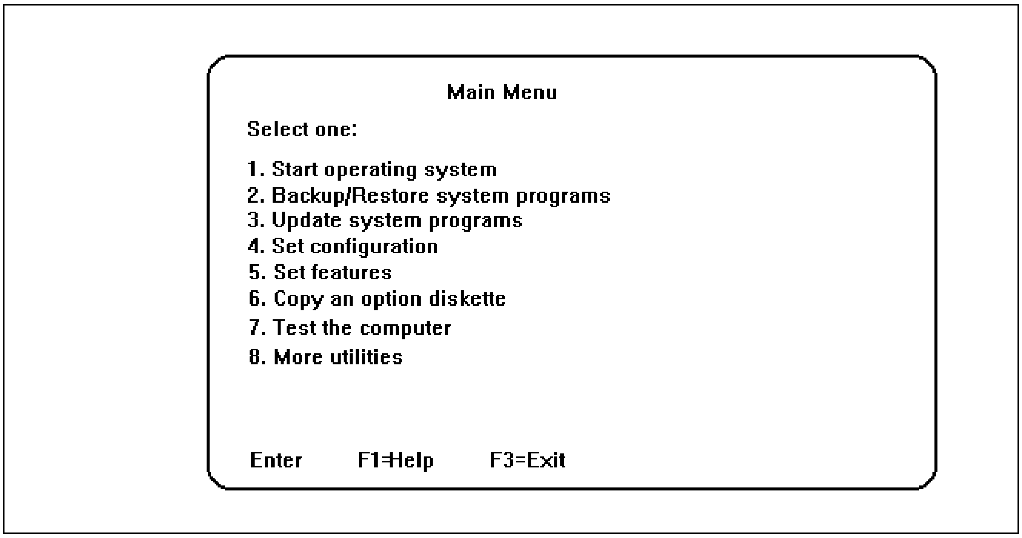


```
Configuration error - XXXXX

Automatically configure the system? (Y/N)
```

Figure 5-28 Configuration error

Step 7 Type **N**. No automatic configuration is performed.

The Main Menu appears. See Figure 5-29.



```
                 Main Menu
Select one:

1. Start operating system
2. Backup/Restore system programs
3. Update system programs
4. Set configuration
5. Set features
6. Copy an option diskette
7. Test the computer
8. More utilities


Enter     F1=Help     F3=Exit
```

Figure 5-29 Main Menu

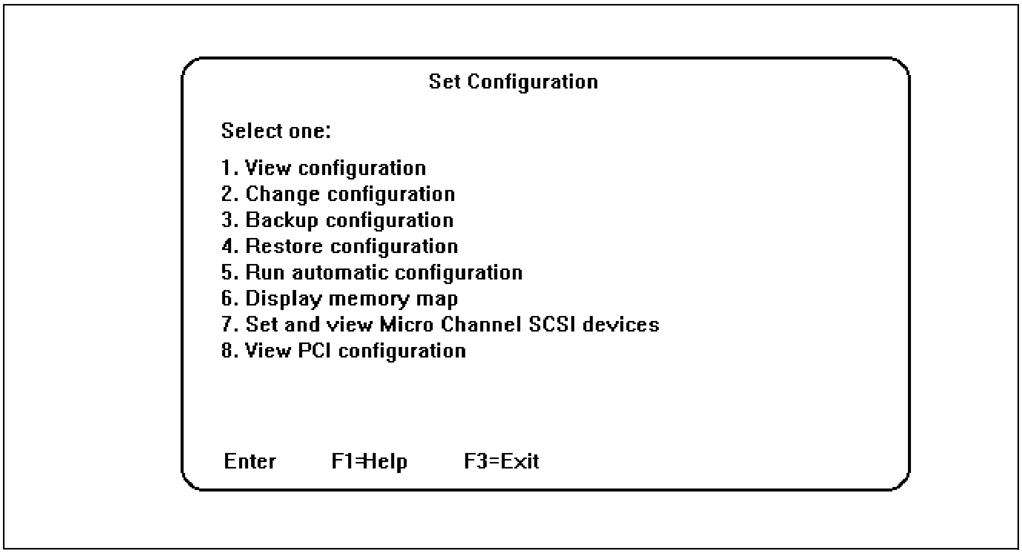
Note

If the adapter configuration is already defined in the system, copying of the option disk is not required.

Step 8 Insert the adapter’s option diskette into drive A: and select option **6**. Press **ENTER** to continue.

Step 9 After the option diskette is copied, select option **4** is to set the configuration. Press **ENTER**

The Set Configuration screen appears. See Figure 5-30.



Set Configuration

Select one:

1. View configuration
2. Change configuration
3. Backup configuration
4. Restore configuration
5. Run automatic configuration
6. Display memory map
7. Set and view Micro Channel SCSI devices
8. View PCI configuration

Enter F1=Help F3=Exit

Figure 5-30 Set Configuration

Step 10 Select option **2** to change and view the configuration. Press **ENTER**.

Step 11 Scrolling the display with the **Page Down** key displays the IBM 3278/79 adapter configuration.

Step 12 Press **F3** several times to exit the reference program.

Note

The operating system can only be started if already installed according to *Chapter 6 - Operating System Installation*.

Step 13 Test the adapter to verify the configuration and operation. Select the appropriate options to test the computer.

Step 14 When prompted, press **ENTER** to restart the operating system..

This completes the MCA hardware configuration for the coaxial DFT 3278/79 cable connection.

IBM Dual Async Adapter Card Installation

The IBM Dual Async Adapter provides support for 2 additional COM ports.

Follow the steps to install the Dual Async adapter in an MCA, MCA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty full length MCA slot. Loosen the connector screw in the back to allow access to the 2 additional Com ports.

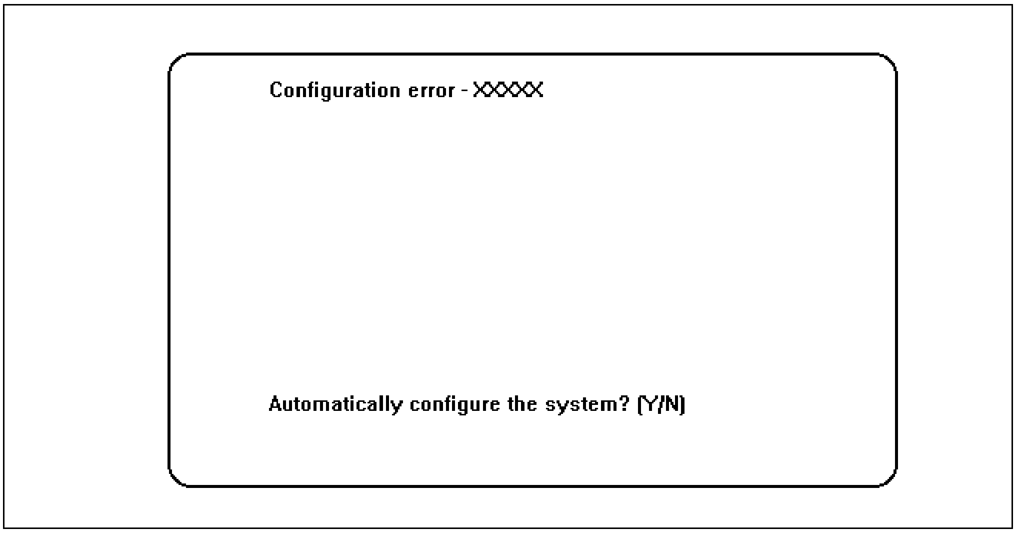
Step 4 Remove the adapter from the protective wrapping and insert the adapter into the MCA slot. Secure the screw to seat the adapter. Ensure each adapter card backplate is flush with the controller backplane.

Step 5 Close and secure the AMU controller housing and boot the AMU controller.

The system program Configuration error screen appears. Refer to Figure 5-31 on page 5-52.

☞ **Note**

During bootup, the controller displays the error message: *00165 - Adapter Configuration Error* and requests a system programs load.

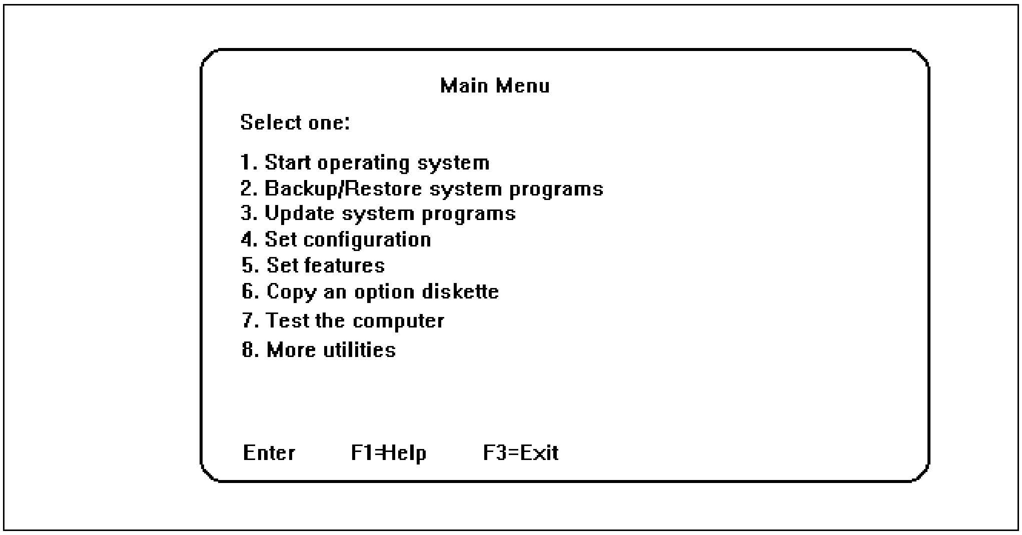


```
Configuration error - XXXXX

Automatically configure the system? (Y/N)
```

Figure 5-31 Configuration error

Step 6 Type **N**. An automatic configuration is not performed.

The Main Menu appears. See Figure 5-32.



Main Menu

Select one:

1. Start operating system
2. Backup/Restore system programs
3. Update system programs
4. Set configuration
5. Set features
6. Copy an option diskette
7. Test the computer
8. More utilities

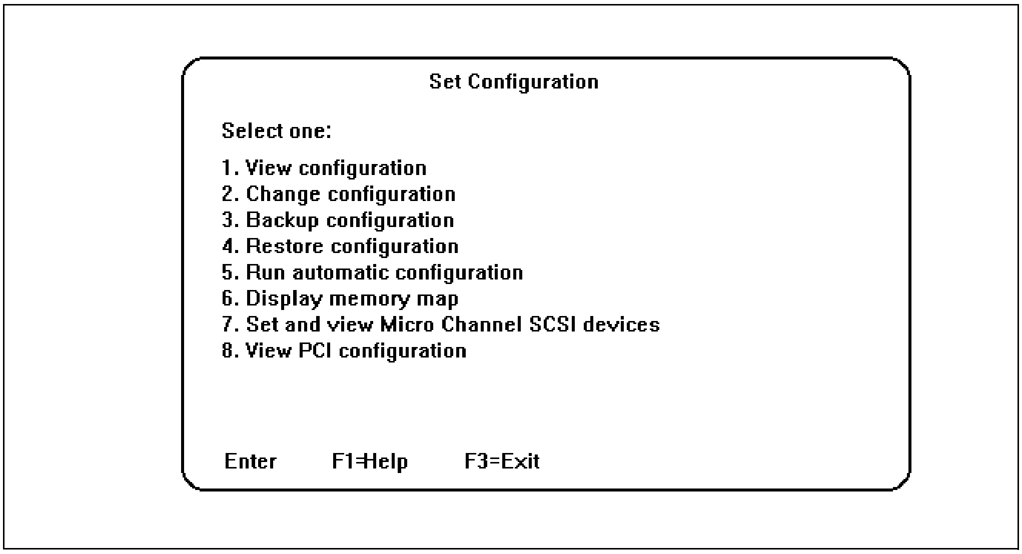
Figure 5-32 Main Menu

Note
If the adapter is defined in the system, copying of the option diskette is not required.

Step 7 Insert the adapter's option diskette into drive A: and select option **6**. Press **ENTER** to continue.

Step 8 After the option diskette is copied, select option **4** from the Main Menu. Press **ENTER**.

The Set Configuration screen is displayed. See Figure 5-33.



```
                    Set Configuration

Select one:

1. View configuration
2. Change configuration
3. Backup configuration
4. Restore configuration
5. Run automatic configuration
6. Display memory map
7. Set and view Micro Channel SCSI devices
8. View PCI configuration



Enter       F1=Help       F3=Exit
```

Figure 5-33 Set Configuration

Step 9 Select option **2** to change and view the configuration. Press **ENTER**.

Step 10 Scrolling the display with the **Page Down** key displays the Dual Async adapter configuration.

Step 11 Press **F3** several times to exit the reference program.

Step 12 Test the adapter to verify the configuration and operation. Select the appropriate options to test the computer.

Note
The operating system can only be started if already installed according to *Chapter 6, Operating System Installation*

Step 13 When prompted, press **ENTER** to restart the operating system.

This completes the MCA hardware configuration for the Dual Async adapter.

SOTEC Async Adapter Card Installation

The SOTEC Async Adapter provides support for 4 additional COM ports.

Follow the steps to install the Async adapter in an ISA or ISA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty ISA slot. Loosen the connector screw in the back to allow access to the additional Com ports.

Note
The SOTEC adapter is an 8 bit adapter which allows IRQ settings 3, 4, 5, and 7. The adapter supports shared interrupts which allows all additional COM ports to use the same IRQ with different Base I/O addresses. The IRQ and I/O addresses are configured in the CONFIG.SYS.

Step 4 Remove the adapter from the protective wrapping and set the adapter's configuration jumper/switch settings according to the adapter's documentation.

Step 5 Insert the adapter into the ISA slot and secure the screw to seat the adapter. Ensure each adapter card backplate is flush with the controller backplane.

Step 6 Close and secure the AMU controller housing and boot the AMU controller.

Step 7 Insert the adapter software diskette into drive A: and select an OS/2 window.

Step 8 Create a directory *SIO* in the *C:\* root directory and copy the device driver *SIO.SYS* to this directory.

Note
The standard OS/2 driver does not support interrupt sharing. Install the SOTEC adapter device driver.

Step 9 Edit the *CONFIG.SYS* to add the new serial ports to the existing COM1 and COM2 ports:

```
DEVICE=C:\SIO\SIO\SYS (COM1)(COM2)
   (COM3,300,5)(COM4,308,5)(COM5,310,5)
   (COM6,318,5)
```

where the new COM port definitions are followed by the base I/O address and IRQ value.

This completes the ISA hardware configuration for the SOTEC multiport adapter.

SIIG HighSpeed I/O Adapter Card Installation

The SIIG High Speed I/O Adapter provides support for 2 additional COM ports.

Follow the steps below to install the SIIG HighSpeed I/O adapter:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty ISA slot. Loosen the connector screw in the back to allow access to the additional Com ports.

☞ **Note**

The SIIG adapter supports IRQ settings 3, 4, 5, and 9 for the serial port(s), and IRQs 5 or 7 for the parallel port. Make sure IRQ and I/O address assignments do not conflict with COM1, COM2, and LPT1 settings.

Step 4 Remove the adapter from the protective wrapping and set the adapter's configuration jumper settings according to the adapter's documentation.

The adapter configuration may be changed by reassigning jumper block JP1 settings. Jumpers may be removed, or connected to either the *BASE* and *LOW* connection, or *BASE* and *HIGH* connection. The jumper assignments are listed in Table 5-17 on page 5-55. Note the jumper settings for future reference.

Table 5-17 JP1 Jumper Block Assignments

Pin	Position	Description	Low	Base	High
JP1 - 1	Low / High	Disable / Enable serial port 1			
JP1 - 2	Low / High	Disable / Enable serial port 2			
JP1 - 3 JP1 - 4	Low Low	Disable parallel port			
JP1 - 3 JP1 - 4	Low High	ECP capability for parallel port			
JP1 - 3 JP1 - 4	High Low	EPP capability for parallel port			
JP1 - 3 JP1 - 4	High High	SPP/BPP capability for parallel port			

Table 5-17 JP1 Jumper Block Assignments

JP1 - 5	Low / High	serial port 1 selection of COM3 / COM1			
JP1 - 6	Low / High	serial port 2 selection of COM4 / COM2			
JP1 - 7	Low / High	parallel port I/O address 278h - 27Fh / 378h - 37Fh			
JP1 - 8	Low / High	parallel port IRQ setting IRQ 5 / IRQ 7			
JP1 - 9	Low / High	port 1 IRQ 3 / port 2 IRQ 3			
JP1 - 10	Low / High	port 1 IRQ 4 / port 2 IRQ 4			
JP1 - 11	Low / High	port 1 IRQ 5 / port 2 IRQ 5			
JP1 - 12	Low / High	port 1 IRQ 9 / port 2 IRQ 9			

Step 5 Insert the adapter into the ISA slot and secure the screw to seat the adapter. Ensure the adapter card backplate is flush with the controller backplane.

If the second serial I/O port is required, insert the connector into the second I/O slot opening and secure the screw to seat the connector. Connect the I/O port's ribbon cable to the 10-pin connector SIO2 on the I/O adapter card. Make sure the ribbon cable pin 1 (red cable) connects to Pin 1 of the SIO2 connector.

Step 6 Close and secure the AMU controller housing.

This completes the ISA hardware configuration for the SIIG HighSpeed I/O adapter.

IBM RIC Multiport Adapter Card Installation

The IBM RIC Adapter provides support for 4 or 8 additional COM ports. See Figure 5-34.

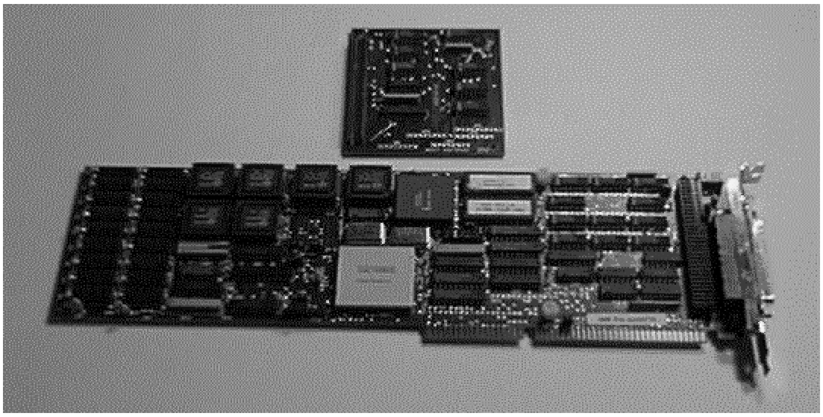


Figure 5-34 IBM RIC Multiport Adapter with Co-processor (ARTIC Card bundle for ISA)

Follow the steps to install the RIC adapter in an ISA or ISA/PCI AMU controller:

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty two-edge ISA expansion slot. Loosen the connector screw in the back to allow the 4/8-Com port extension cable connection.

Step 4 Remove the adapter from the protective wrapping and set the jumper/switch settings according to the adapter's documentation. Jumper settings depend on the RIC adapter type. The example configures a RIC adapter with 512 KB memory.

☞ **Note**

If the RIC adapter is used in combination with an installed 8 bit adapter card, the RIC card requires the setting of an 8 bit bus width.

- IRQ: 11
- Interrupt request level: 11 (same as IRQ)
- Base I/O Address: 06A0
- Bus Width: 8 bit
- Memory type: 256KX1

The example configures a RIC adapter with 1 MB memory:

- IRQ: 11
- Base I/O Address: 06A0
- Bus Width: 8 bit
- Memory size: 1MB

Step 5 Attach the co-processor board and insert the adapter into the ISA slot. Secure the screw to seat the adapter and ensure the adapter card backplate is flush with the controller backplane.

Step 6 Close and secure the AMU controller housing and attach the COM port extender cable to the adapter.

Step 7 Boot the AMU controller.

Step 8 Select an OS/2 window and change to the `C:\` prompt. Insert the *Quadron qCOM Port Expander* diskette into drive A: and type `a:\qinstall` followed by **ENTER**.

☞ **Note**

The AMU AMS installation prepares the CONFIG.SYS and STARTUP.CMD file to support a single adapter. Refer to the *`qCOM RUNTIME SUPPORT MANUAL`* for additional information regarding multiple adapters.

Step 9 Follow the instructions on the screen to install the qCOM support. Accept the default path `C:\QCF` for the qCOM installation.

Step 10 The *CONFIG.SYS* and *STARTUP.CMD* files are not modified by the installation program. The *CONFIG.SYS* device statements and *STARTUP.CMD* initialization strings are added by the AMU archive management software installation program.

See Table 5-18 for manual *CONFIG.SYS* updates.

Table 5-18 CONFIG.SYS Updates

```
PATH=C:\QCF\OS2EXE
DEVICE=C:\QCF\OS2EXE\QCFDEV.SYS C:\QCF\OS2EXE\QPARM.PRM
DEVICE=C:\QCF\OS2EXE\QCOMDEV.SYS C:\QCF\OS2EXE\QCOMPARM.PRM
SET QPATH=C:\QCFRICEXE;C:\QCF\OS2EXE
```

Manual *STARTUP.CMD* updates include:

a. RIC multiport with 512KB memory in Table 5-19.

Table 5-19 STARTUP.CMD Updates (512KB Memory)

```
QRESET 0
QLD ICAAIM.COM /C0
QCOMLOAD 0 2
```

b. RIC multiport with 1MB memory in Table 5-20.

Table 5-20 STARTUP.CMD Updates (1MB Memory)

```
QRESET 0
QCOMLOAD 0 2
```

where the number *0* reflects the installed adapter number.

Step 11 Edit the file *C:\QCF\OS2EXE\QPARM.PRM* to include the adapter configuration values. The *QPARM.PRM* file contains a 9-field record to contain the adapter configuration. Additional records (lines) define additional RIC adapter cards. An example of a configuration is displayed in Table 5-21.

Table 5-21 QPQRM.PRM Field Definitions

Entry	Value	Explanation
START	#	Start of record
Base I/O	6A0	Adapter’s I/O address
8K page	68	8K page at 0D0000-0D1FFF
MAX TASK	10	16 tasks
MAX PRI	10	16 priorities
MAX QUE	0	0 queues
MAX TIME	10	16 software timers
DEGATE 1	0F	recommended value
DEGATE 2	E010	recommended value
STOP	$	end of record (use*;* if more records)

As an example, compare a single adapter card definition:

```
# 6A0 0 68 10 10 0 10 0F E010 $
```

Note
For detailed information refer to the *qCOM Runtime Support Manual*.

Step 12 Edit the file *C:\QCF\OS2EXE\QCOMPARM.PRM* to inform the qCOM device driver which COM port to associate with which ARTIC port on the ARTIC card.

The *QCOMPARM.PRM* file contains five-field records to establish COM port associations. Each record start with a **#**, followed by the **COM** port. followed by the **ARTIC Adapter** number, followed by the **ARTIC port** number, followed by a **;**.

The default *QCOMPARM.PRM* file is shown below:

```
# 2 0 0;

# 3 0 1;

# 4 0 2;

# 5 0 3;

# 6 0 4;

# 7 0 5;
# 8 0 6;
# 9 0 7;
```

This file must be edited to allow support of the controller second COM port (COM 2), which, as the example above shows, is redirected to the first COM port (0) on the ARTIC card. The new assignment is shown below:

```
# 3 0 0;
# 4 0 1;
# 5 0 2;
# 6 0 3;
# 7 0 4;
# 8 0 5;
# 9 0 6;
# 10 0 7;
```

This completes the ISA hardware configuration for the RIC multiport adapter.

IBM RIC Multiport/2 Adapter Card Installation

The IBM RIC Multiport/2 Adapter provides support for 8 additional COM ports. Follow the steps to install the Multiport/2 adapter in a MCA or MCA/PCI AMU controller.

Step 1 Unplug the controller and monitor from any power source and disconnect all cable attachments.

Step 2 Remove all jewelry from your hands and wrists. Use only insulated or nonconducting tools.

Step 3 Remove the controller housing and locate an empty MCA slot. Loosen the connector screw in the back to allow the Com port extension cable connection.

Step 4 Remove the adapter from the protective wrapping and attach the co-processor board. Insert the adapter into the MCA slot. Secure the screw to seat the adapter. Ensure that the adapter card backplate is flush with the controller backplane.

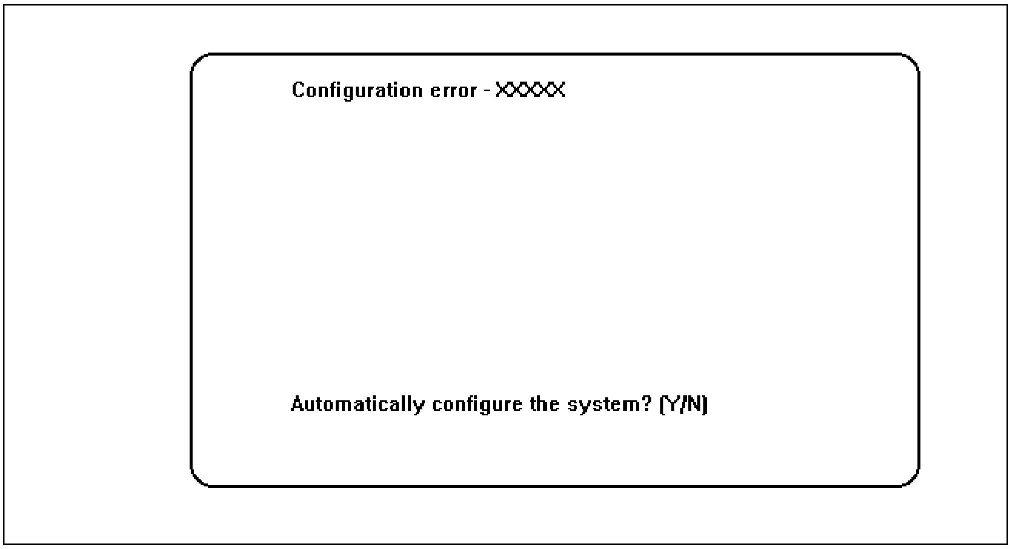
Step 5 Close and secure the AMU controller housing and attach the COM port extender cable to the adapter.

Step 6 Boot the AMU controller.

The system program displays the Configuration error screen. Refer to Figure 5-35 on page 5-63.

☞ **Note**

During bootup, the controller displays the error message: *00165 - Adapter Configuration Error* and requests a system programs load.



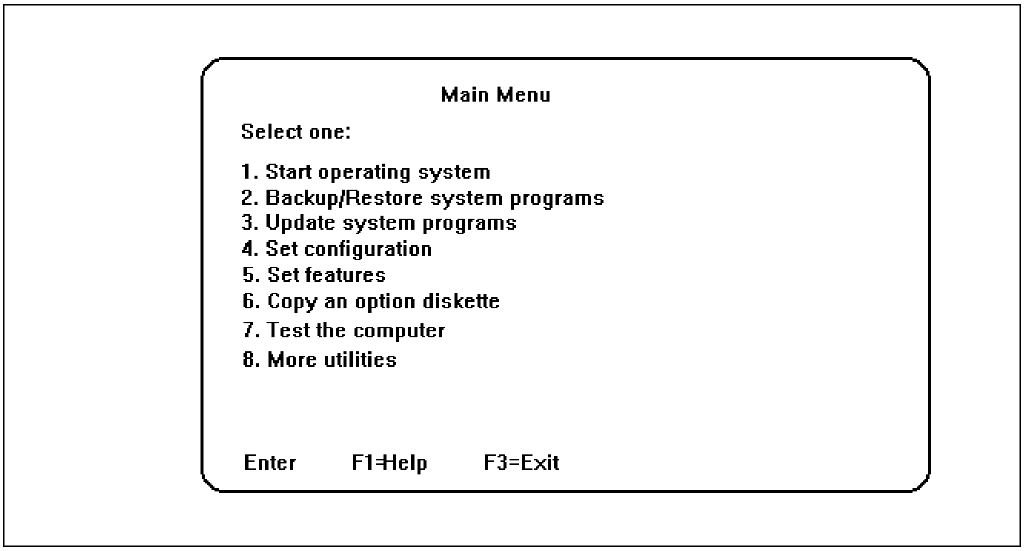
Configuration error - XXXXX

Automatically configure the system? (Y/N)

Figure 5-35 Configuration error

Step 7 Type **N**. No automatic configuration is performed.

The Main Menu appears. See Figure 5-36.



Main Menu

Select one:

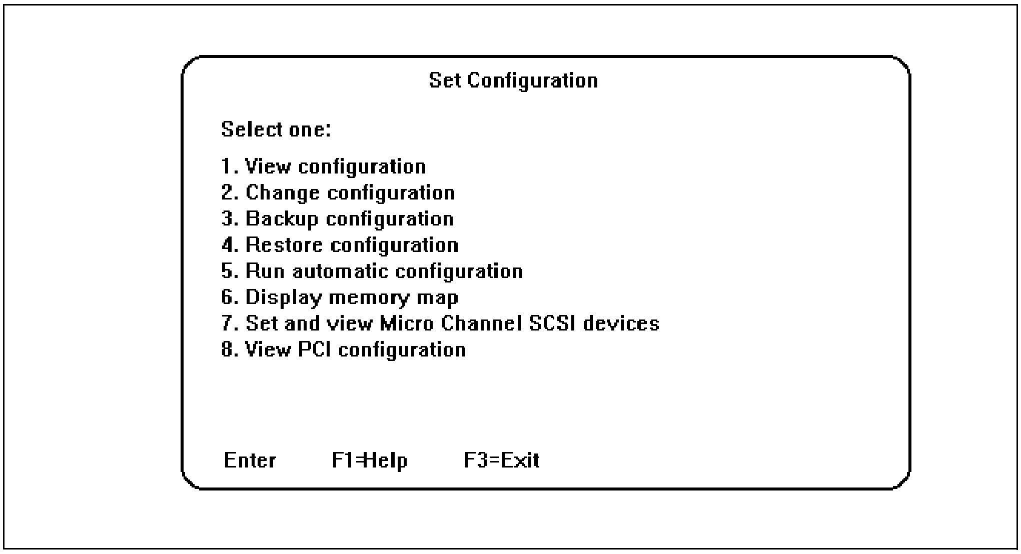
1. Start operating system
2. Backup/Restore system programs
3. Update system programs
4. Set configuration
5. Set features
6. Copy an option diskette
7. Test the computer
8. More utilities

Figure 5-36 Main Menu

Step 8 Insert the adapter’s option diskette into drive A: and select option **6**. Press **ENTER** to continue.

Step 9 After the option diskette is copied, select option **4** from the Main Menu to set the configuration. Press **ENTER**.

The Set Configuration screen is displayed. See Figure 5-37.



Set Configuration

Select one:

1. View configuration
2. Change configuration
3. Backup configuration
4. Restore configuration
5. Run automatic configuration
6. Display memory map
7. Set and view Micro Channel SCSI devices
8. View PCI configuration

Enter F1=Help F3=Exit

Figure 5-37 Set Configuration

Step 10 Select option **2** to change and view the configuration. Press **ENTER**.

Step 11 Scrolling the display with the **Page Down** key displays the installed IBM Realtime Interface Co-processor Multiport/2 or X.25 adapter parameters. Ensure that the multiport adapter is set to be the first adapter. Accept or change all other parameter settings.

Step 12 Press **F10** to save your selection.

Step 13 Press **F3** several times to exit the reference program.

☞ **Note**
The operating system can only be started if already installed according to *Chapter 6, Operating System Installation.*

Step 14 Test the adapter to verify the configuration and operation. Select the appropriate options to test the computer.

Step 15 When prompted, press **ENTER** to restart the operating system.

Step 16 Select an OS/2 window and change to the `C:\` prompt. Insert the *Quadron qCOM Port Expander* diskette into drive A: and type `a:\qinstall` and press **ENTER**.

Step 17 Follow the instructions on the screen to install the qCOM support. Make sure you accept the default path `C:\QCF` for the qCOM installation.

Step 18 The installation is now complete, however, the *CONFIG.SYS* and *STARTUP.CMD* file have not been modified by the installation program. The *CONFIG.SYS* device statements and *STARTUP.CMD* initialization strings will be added by the AMU archive management software installation program.

☞ Note
The AMU AMS installation prepares the CONFIG.SYS and STARTUP.CMD file to support a single adapter. Refer to the *`qCOM RUNTIME SUPPORT MANUAL`* for additional information regarding multiple adapters.

See Table 5-22 for manual *CONFIG.SYS* updates.

Table 5-22 CONFIG.SYS Updates

```
PATH=C:\QCF\OS2EXE

DEVICE=C:\QCF\OS2EXE\QCFDEV.SYS C:\QCF\OS2EXE\QPARM.PRM

DEVICE=C:\QCF\OS2EXE\QCOMDEV.SYS C:\QCF\OS2EXE\QCOMPARM.PRM

SET QPATH=C:\QCFRICEXE;C:\QCF\OS2EXE
```

See Table 5-23 for manual *STARTUP.CMD* updates.

Table 5-23 STARTUP.CMD Updates

```
QRESET 0

QCOMLOAD 0 2
```

where the number *0* reflects the installed adapter number.

Step 19 Edit the file *C:\QCF\OS2EXE\QPARM.PRM* to inform the device driver of the adapter configuration values.

The *QPARM.PRM* file contains a 9-field record to contain the adapter configuration. Additional records (lines) define additional adapter cards. The default

QPARM.PRM file should match the MCA system configuration. If manual configurations were made, update the file to reflect the MCA system configuration. An example record entry follows is outlined in Table 5-24.

Table 5-24 Record Entry

Entry	Value	Explanation
START	#	Start of record
Base I/O	2A0	Adapter's I/O address
8K page	68	8K page at 0D0000-0D1FFF
MAX TASK	10	16 tasks
MAX PRI	10	16 priorities
MAX QUE	0	0 queues
MAX TIME	10	16 software timers
DEGATE 1	0F	recommended value
DEGATE 2	E010	recommended value
STOP	$	end of record (use*;* if more records)

As an example, compare a single adapter card definition:

```
# 2A0 0 68 10 10 0 10 0F E010 $
```

Note

For detailed information refer to the *qCOM Runtime Support Manual.*

Step 20 Edit the file *C:\QCF\OS2EXE\QCOMPARM.PRM* to inform the qCOM device driver which COM port to associate with which ARTIC port on the ARTIC card.

The *QCOMPARM.PRM* file contains five-field records to establish COM port associations. Each record start with a **#**, followed by the **COM** port, followed by the **ARTIC Adapter** number, followed by the **ARTIC port** number, followed by a **;**.

The default QCOMPARM.PRM file is shown below:

```
# 2 0 0;

# 3 0 1;

# 4 0 2;

# 5 0 3;

# 6 0 4;

# 7 0 5;

# 8 0 6;

# 9 0 7;
```

Edit this file to support the controller's second COM port (COM 2), which, as the example above shows, is redirected to the first COM port (0) on the ARTIC card. The new assignment is shown below:

```
# 3 0 0;

# 4 0 1;

# 5 0 2;

# 6 0 3;

# 7 0 4;

# 8 0 5;

# 9 0 6;

# 10 0 7;
```

This completes the MCA hardware configuration for the Multiport/2 adapter.

G. Diehl ISDN Adapter

For the remote control with NETBIOS and TCP/IP can be used an ISDN adapter. The configuration of such installation with an NDIS driver is discribed in this section.

Necessary hardware and software.

- 2 PS/2 77i with 16 MB RAM
- 2 G.Diehl ISDN Adapter and Adapter driver
- OS/2 WARP
- TCP/IP 3.0
- DCAF 1.3
- KopyKat 1.1

Other versions was not tested, but works perhaps also.

Table 5-25 Parameter settings of the G.Diehl ISDN board

Adapter	Base I/O	IRQ
G.Diehl ISDN Adapter	0200	5 or higher (default from factory is 2)

Step 1 Copy the files from the floppy “ISDN MC” to your harddisk

- DINDIS.OS2
- DINDIS.NIF
- NetBios.NIF

```
[C:\] copy a:\driver\dindis.* C:\ibmcom\macs
[C:\] copy a:\driver\NetBios.nif C:\ibmcom\protocol
```

Step 2 Change and addd the following lines in the file CONFIG.SYS

```
DEVICE=C:\ISDN\DIDD.OS2
DEVICE=C:\ISDN\DIMAINT.OS2
DEVICE=C:\ISDN\DLOAD..OS2 -a200 -5 -f C:\ISDN\DIVA.BIN
DEVICE=C:\ISDN\TED1TR6.OS2 -a200
DEVICE=C:\ISDN\DIAPIS.OS2
DEVICE=C:\ISDN\CAPI20.OS2
(-a200 = adresse)
(-5 = IRQ)
```

Step 3 Copy the files from the Diskette 2 (red) Driver OS/2 - Workstation Driver Software Package to the Harddisk.

```
[C:\] md C:\isdn
[C:\] copy a:*.* C:\isdn
```

Step 4 Configure in MPTS or LAPS the desired protocol. Edit the driver file in MPTS or LAPS. In the driver files from the diskette ISDN MC are only to change the phone number.

```
Called ISDN number 1 (number of the target PC)
Calling ISDN number 1 (number of the calling PC)
Own Network (12digit adress e.g. 400000100001)
```

Configuration KopyKat

Step 1 Configure Kopy on the control PC for TCP/IP

- Enter in windows CALL name or other definition of the target PC
- select Add
- select protocol TCP/IP
- enter the TCP/IP address of the other PC
- enter the password to access the other PC (option)
- enter Port ID (use default)

— or —

Configure Kopy on the control PC for NETBIOS

- Enter in windows CALL name or other definition of the target PC
- select Add
- select protocol NETBIOS
- enter the adapter adress (PC network ID) of the other PC
- enter the password to access the other PC (option)
- select adapter number
- select NETBios.DLL as default
  (default NETAPI.DLL)

Step 2 Configure Cat on the target PC

- Enter in the window Answer Settings the Port type
- Enter password, if in Kopy defined
- select wait for connection

Step 3 Configure in TCP/IP settings the interface and set there the Hostname for the used IP address
(TCP/IP Config. subsection Hostnames Page 2 of 2)

Configuration DCAF

Step 1 Configure the modem controller (procedur like with a modem, but instead of asynchronus select NetBios or TCP/IP)

Step 2 Activate on TCP/IP **Target**
Enter on page 2 Protocol in the field Remote host name the name of the Target PC (IP name) Dont change the default port 2501, if the port is not use by another application.

— or —

Activate on NetBios **Target**
Enter on page 2 Protocol in the field Network call address the name adater add of the Target PC (IP name) and the number of the adapter

Step 3 Select on the Target the used protocol and activate the session

Step 4 Look for problems in the menu options and personalization

6

Operating System Installation

Overview

The OS/2 installation procedure assumes that the AMU controller and monitor are setup properly and that the hard disk and CD-ROM (IDE or SCSI) are operational. The installation description discusses 3.5 inch diskette and CD-ROM installations. Installations may differ due to CD-ROM and 3.5 inch diskette specific installation procedures and operating system release levels. Notes to indicate differences between diskette and CD-ROM installations are given. OS/2 setup descriptions apply to both installation procedures.

OS/2 Warp Installation

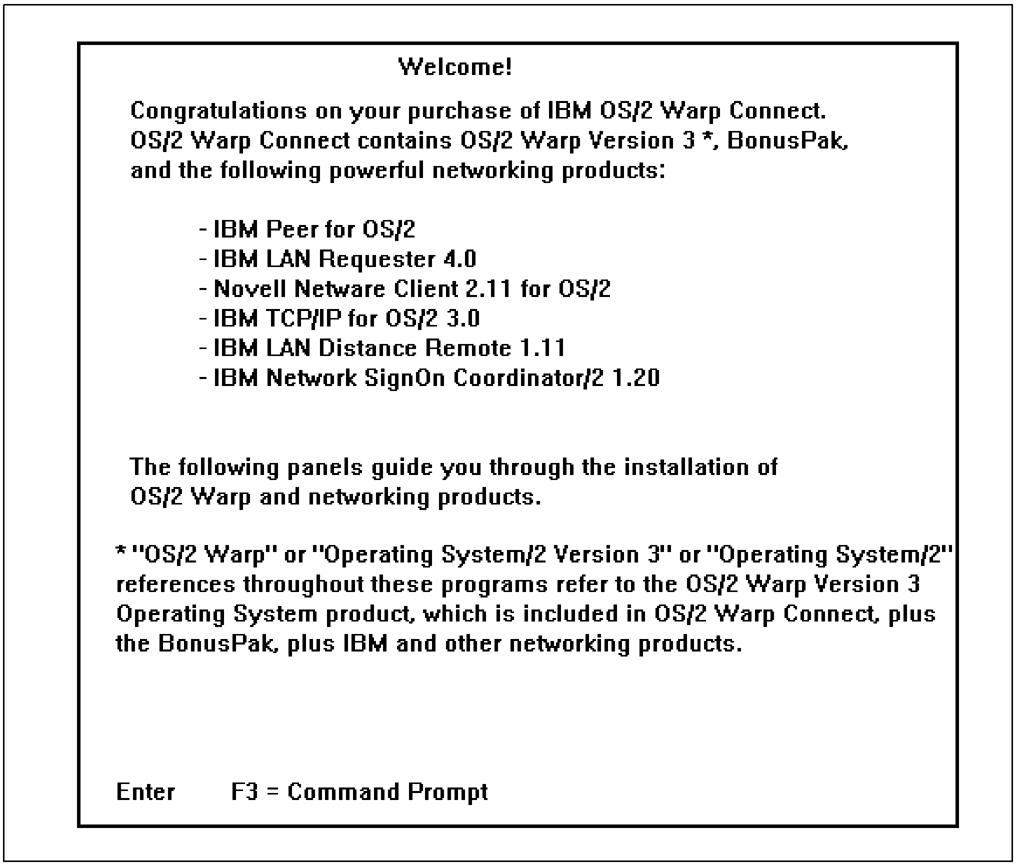
OS/2 is installed on a single partition, formatted with the High Performance File System. OS/2 does not require Microsoft Windows support, multi-media support, and game support.

Built-in TCP/IP network support (OS/2 Warp Connect) is required if TCP/IP network support is needed. TCP/IP support may also be installed for future TCP/IP network support.

Follow the steps to install OS/2.

Step 1 Insert the OS/2 installation diskette into drive A: and boot the controller. Follow the instructions to insert additional diskettes until the Welcome! panel is displayed.

The Welcome! panel appears. Refer to Figure 6-1 on page 6-4.



Welcome!

Congratulations on your purchase of IBM OS/2 Warp Connect.
OS/2 Warp Connect contains OS/2 Warp Version 3 *, BonusPak,
and the following powerful networking products:

- IBM Peer for OS/2
- IBM LAN Requester 4.0
- Novell Netware Client 2.11 for OS/2
- IBM TCP/IP for OS/2 3.0
- IBM LAN Distance Remote 1.11
- IBM Network SignOn Coordinator/2 1.20

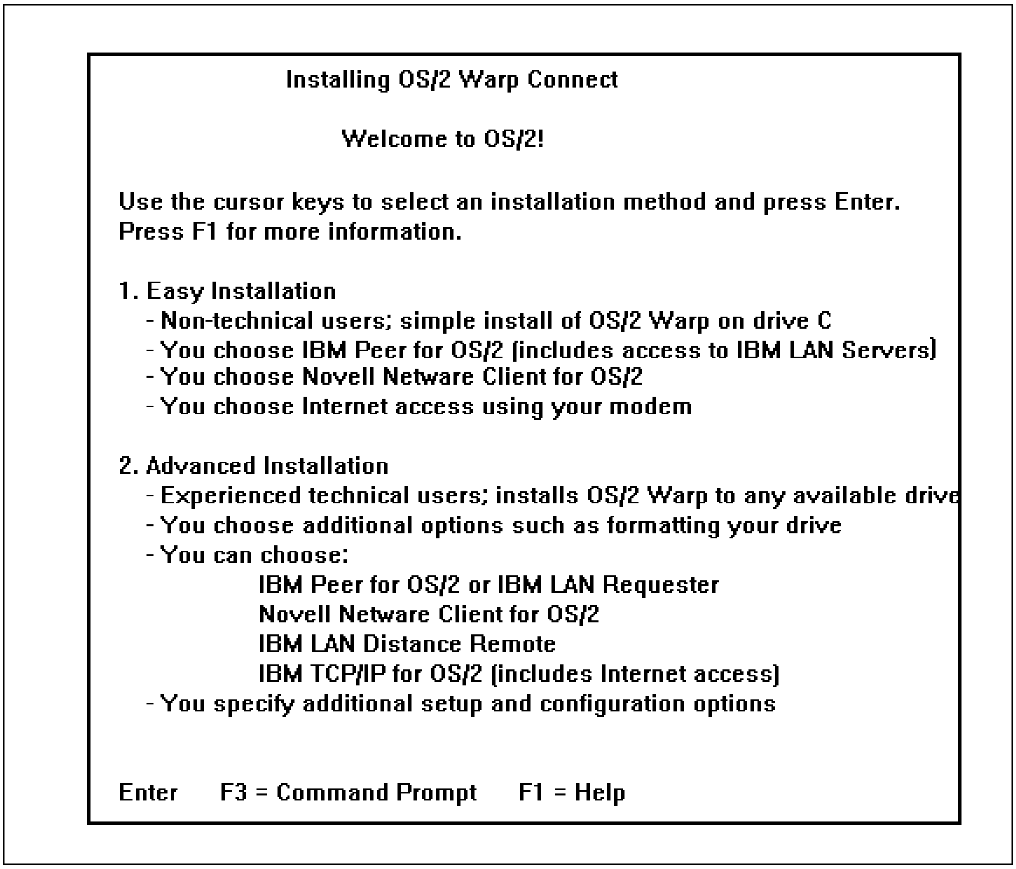
The following panels guide you through the installation of
OS/2 Warp and networking products.

* "OS/2 Warp" or "Operating System/2 Version 3" or "Operating System/2"
references throughout these programs refer to the OS/2 Warp Version 3
Operating System product, which is included in OS/2 Warp Connect, plus
the BonusPak, plus IBM and other networking products.

Figure 6-1 OS/2 Welcome

Step 2 Press the **ENTER** key to continue the installation.

The OS/2 Installation method screen displays. Refer to Figure 6-2 on page 6-5.

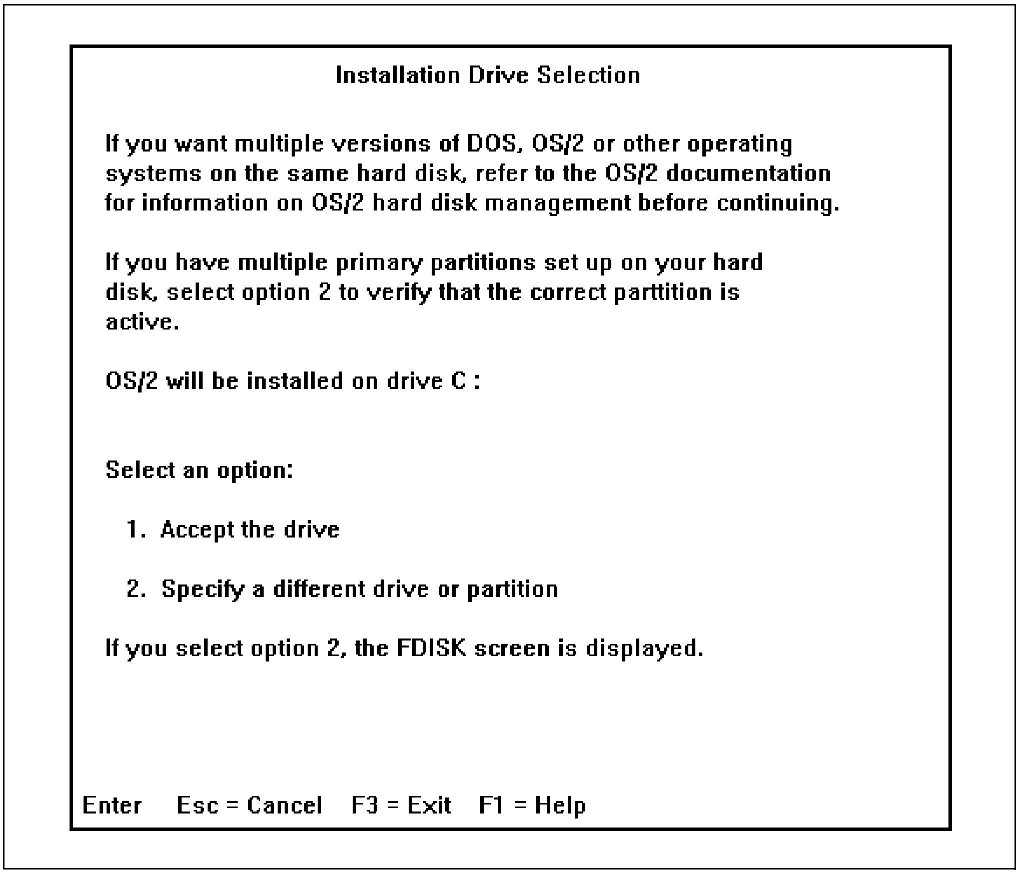


```
                  Installing OS/2 Warp Connect

                        Welcome to OS/2!

Use the cursor keys to select an installation method and press Enter.
Press F1 for more information.

1. Easy Installation
   - Non-technical users; simple install of OS/2 Warp on drive C
   - You choose IBM Peer for OS/2 (includes access to IBM LAN Servers)
   - You choose Novell Netware Client for OS/2
   - You choose Internet access using your modem

2. Advanced Installation
   - Experienced technical users; installs OS/2 Warp to any available drive
   - You choose additional options such as formatting your drive
   - You can choose:
              IBM Peer for OS/2 or IBM LAN Requester
              Novell Netware Client for OS/2
              IBM LAN Distance Remote
              IBM TCP/IP for OS/2 (includes Internet access)
   - You specify additional setup and configuration options


Enter     F3 = Command Prompt     F1 = Help
```

Figure 6-2 OS/2 Installation method

Step 3 Select the **Advanced Installation** option and press **ENTER**.

The Installation Drive Selection screen is displayed. Refer to Figure 6-3 on page 6-6.



Installation Drive Selection

If you want multiple versions of DOS, OS/2 or other operating systems on the same hard disk, refer to the OS/2 documentation for information on OS/2 hard disk management before continuing.

If you have multiple primary partitions set up on your hard disk, select option 2 to verify that the correct parttition is active.

OS/2 will be installed on drive C :

Select an option:

1. Accept the drive
2. Specify a different drive or partition

If you select option 2, the FDISK screen is displayed.

Figure 6-3 Installation Drive Selection

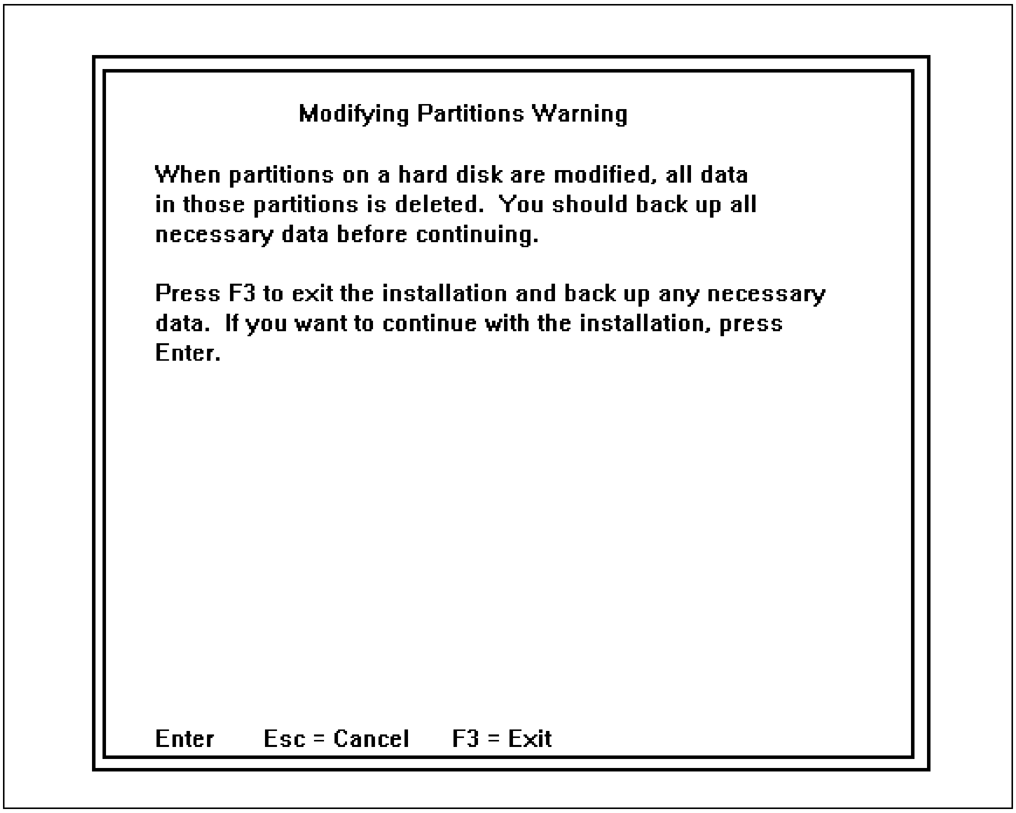
Step 4 Two choices appear. If the hard disk is not partitioned or the partition information requires verification, select **Specify different drive or partition**. Otherwise, select **Accept the drive**. Press **ENTER**.

If **Accept the drive** was selected, continue with Step 5. Otherwise, continue with Step 4a.

⚠ Caution

Prior to partitioning the hard disk, ensure that the system programs are stored on diskettes. If system diskettes are not available, backup the system programs before continuing the installation.

The Modifying Partition Warning screen appears. Refer to Figure 6-4 on page 6-7.



Modifying Partitions Warning

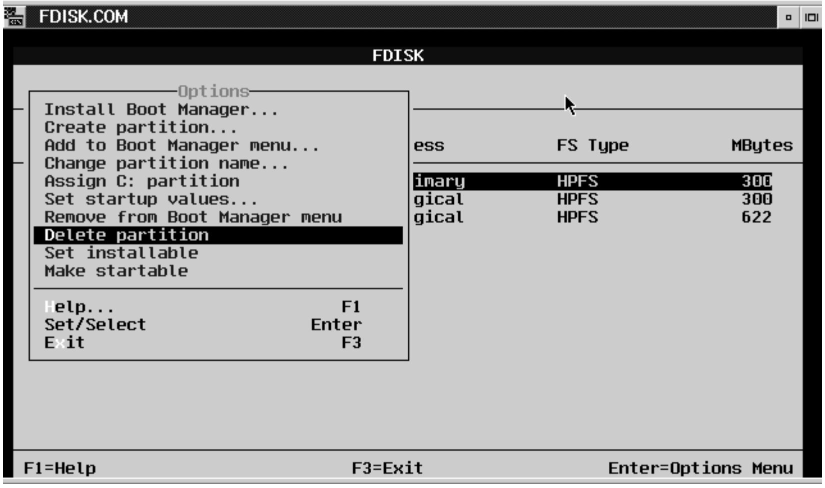
When partitions on a hard disk are modified, all data in those partitions is deleted. You should back up all necessary data before continuing.

Press F3 to exit the installation and back up any necessary data. If you want to continue with the installation, press Enter.

Figure 6-4 Modifying Partition Warning

a. Press the **ENTER** key to start the hard disk partitioning procedure.

The FDISK hard disk partition screen displays. Refer to Figure 6-5 on page 6-8.



```
ess            FS Type          MBytes
imary          HPFS                300
gical          HPFS                300
gical          HPFS                622
```

Figure 6-5 FDISK hard disk partition

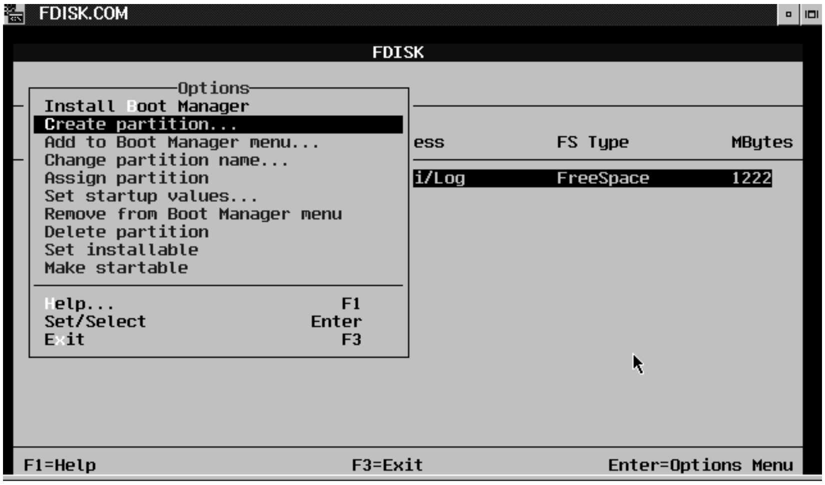
b. The current partition information is displayed. Select and highlight a partition and press **ENTER** to display the Options menu.

Select **Delete Partition** to delete the partition that was selected.

Repeat this step until all partitions have been deleted.

c. Once all partitions have been deleted, select and highlight the Freespace and press **ENTER** to display the Options menu.

The FDISK Option screen displays. Refer to Figure 6-6 on page 6-9.

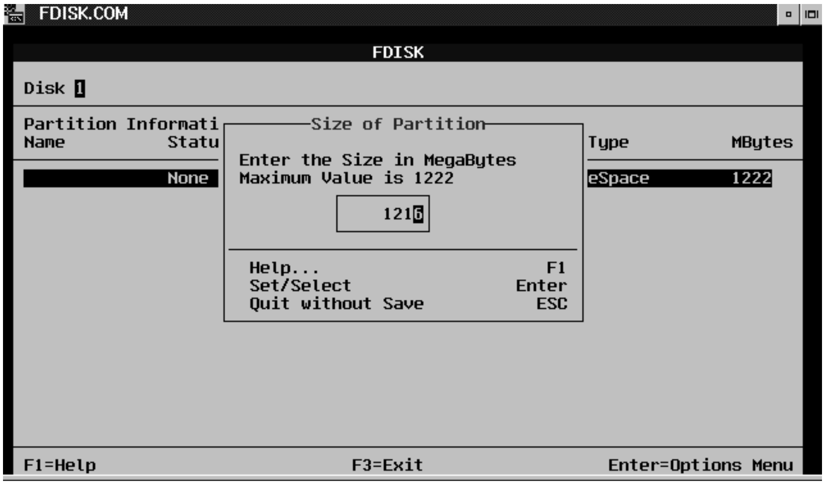


```
FDISK.COM
                                   FDISK
   -------------Options-------------
   Install Boot Manager
   Create partition...
   Add to Boot Manager menu...       ess          FS Type          MBytes
   Change partition name...
   Assign partition                  i/Log        FreeSpace          1222
   Set startup values...
   Remove from Boot Manager menu
   Delete partition
   Set installable
   Make startable

   Help...                     F1
   Set/Select               Enter
   Exit                        F3

F1=Help                          F3=Exit                 Enter=Options Menu
```

Figure 6-6 FDISK Options

d. Select **Create Partition...** and press **ENTER**.

The FDISK partition size screen appears. See Figure 6-7.



```
FDISK.COM
                                   FDISK
Disk 1

Partition Informati ------Size of Partition------
Name          Statu                                 Type           MBytes
                     Enter the Size in MegaBytes
              None   Maximum Value is 1222          eSpace           1222

                               1216

                      Help...                  F1
                      Set/Select            Enter
                      Quit without Save       ESC

F1=Help                          F3=Exit                 Enter=Options Menu
```

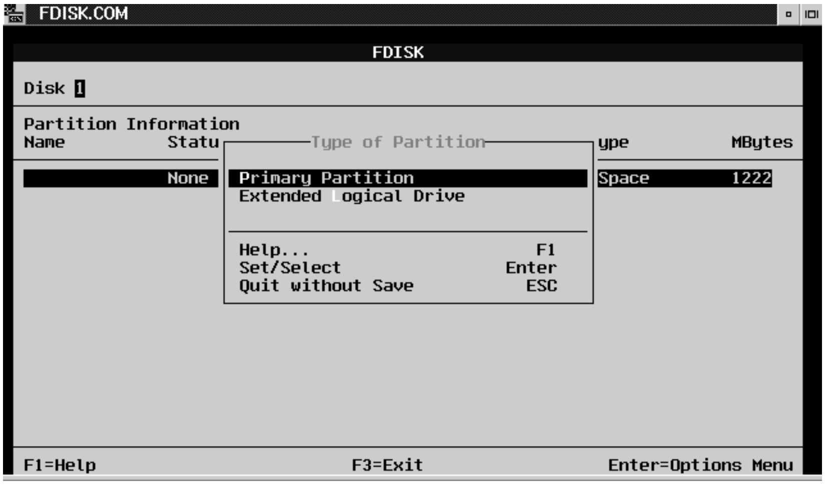
Figure 6-7 FDISK partition size

Note

Use the complete hard disk size minus 1 MB for ISA controllers. For MCA controllers, use the complete size

e. Enter the size of the partition and press **ENTER**.

The FDISK partition type screen displays. See Figure 6-8.

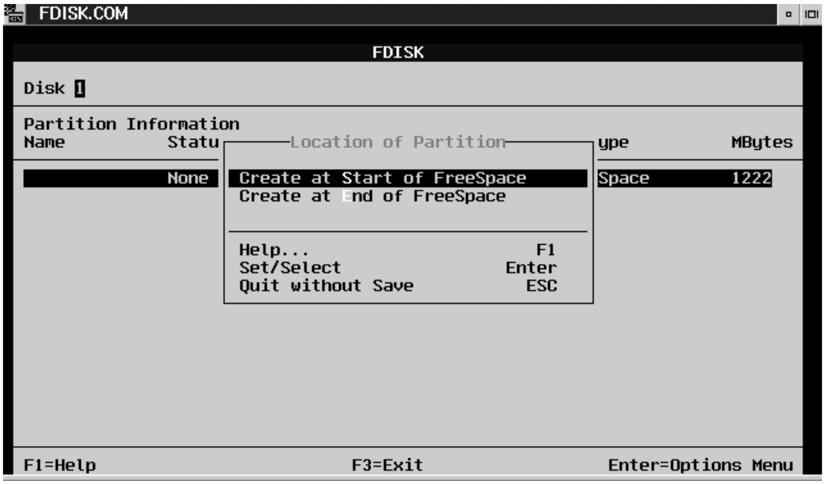


```
                                   FDISK
Disk 1

Partition Information
Name          Statu ┌───────Type of Partition────────┐ ype         MBytes
                    │                                │
         None       │ Primary Partition              │ Space        1222
                    │ Extended Logical Drive         │
                    │                                │
                    │                                │
                    │ Help...                     F1 │
                    │ Set/Select               Enter │
                    │ Quit without Save          ESC │
                    └────────────────────────────────┘

F1=Help                          F3=Exit                Enter=Options Menu
```

Figure 6-8 FDISK partition type

f. In the Type of Partition menu, select **Primary Partition** and press **ENTER**.

The FDISK partition location screen is displayed. Refer to Figure 6-9 on page 6-11.

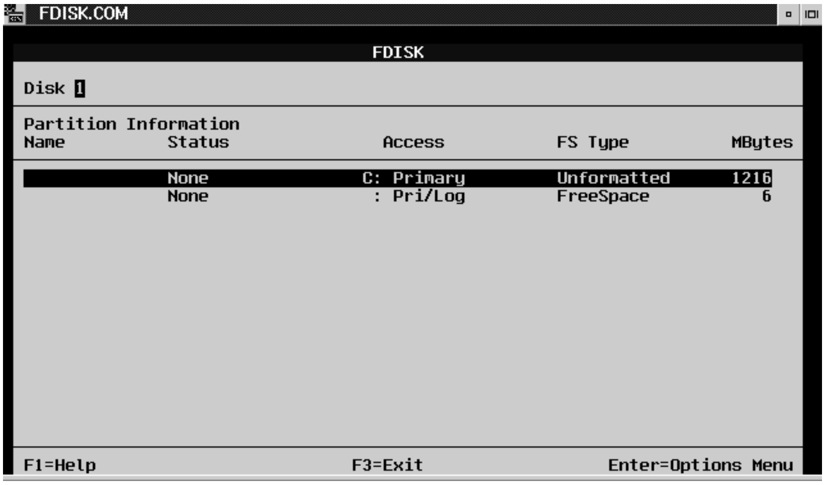


```
                                FDISK
Disk 1
Partition Information
Name           Statu ┌─────Location of Partition─────┐ ype           MBytes
                     │                               │
          None       │ Create at Start of FreeSpace  │ Space           1222
                     │ Create at End of FreeSpace    │
                     │                               │
                     │───────────────────────────────│
                     │ Help...                    F1 │
                     │ Set/Select              Enter │
                     │ Quit without Save         ESC │
                     └───────────────────────────────┘

F1=Help                         F3=Exit                  Enter=Options Menu
```

Figure 6-9 FDISK partition location

g. In the Location of Partition menu, select **Create at Start of FreeSpace** and press **ENTER**.

The FDISK primary partition appears. See Figure 6-10.



```
                                FDISK
Disk 1
Partition Information
Name           Status                Access           FS Type         MBytes

               None               C: Primary          Unformatted       1216
               None                : Pri/Log          FreeSpace            6

F1=Help                         F3=Exit                  Enter=Options Menu
```

Figure 6-10 FDISK primary partition

h. Select and highlight the new primary partition and press **ENTER** to display the Options menu. Select

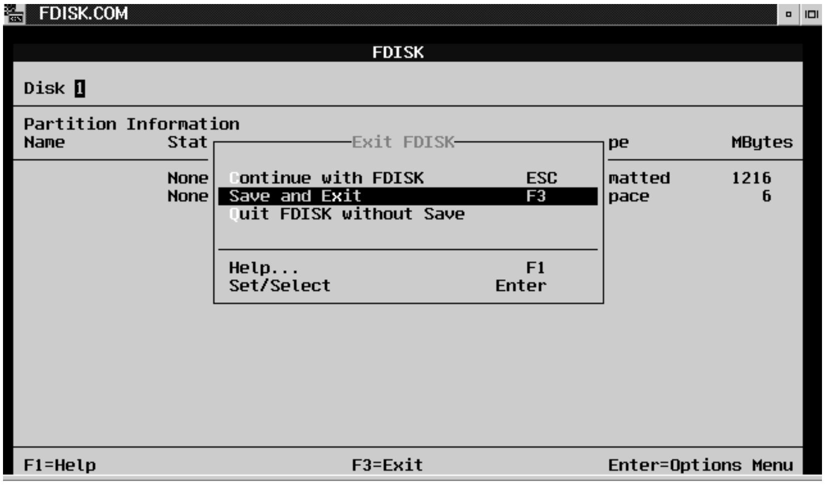
Note

The MCA **FDISK** menu should display 6MB of free space. This space is used by the system program software.

Set Installable and press **ENTER** to prepare for the OS/2 Warp installation.

i. Press **F3** to exit the FDISK program.

The FDISK program exit screen displays. See Figure 6-11.

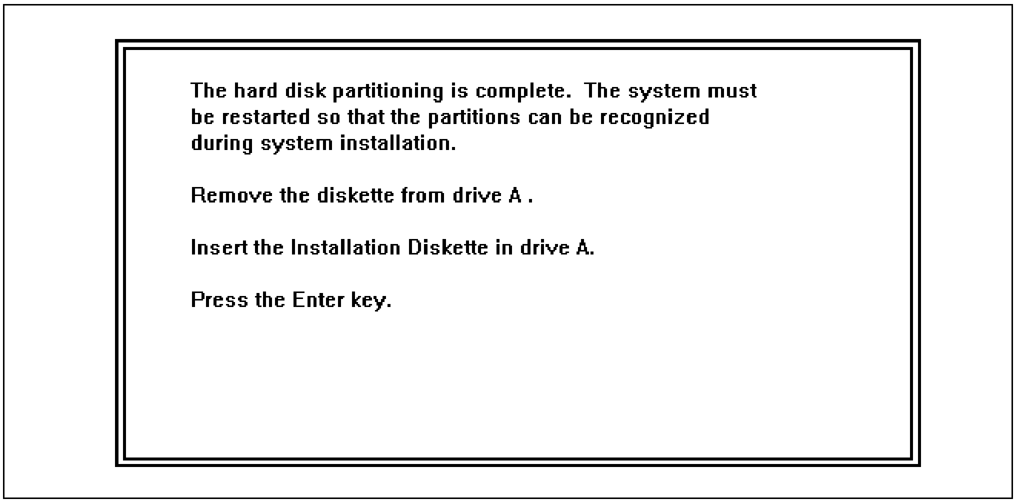


```
FDISK.COM
                                  FDISK
Disk 1
Partition Information
Name          Stat ┌─────────Exit FDISK──────────┐ pe          MBytes
                   │                             │
              None │ Continue with FDISK     ESC │ matted        1216
              None │ Save and Exit           F3  │ pace             6
                   │ Quit FDISK without Save     │
                   │                             │
                   │ Help...                 F1  │
                   │ Set/Select           Enter  │
                   └─────────────────────────────┘

F1=Help                        F3=Exit                Enter=Options Menu
```

Figure 6-11 FDISK program exit

j. Select **Save and Exit** to save and activate all changes. The hard disk partition is now complete.

The Partition completion screen is displayed. Refer to Figure 6-12 on page 6-13.



The hard disk partitioning is complete. The system must be restarted so that the partitions can be recognized during system installation.

Remove the diskette from drive A .

Insert the Installation Diskette in drive A.

Press the Enter key.

Figure 6-12 Partition completion

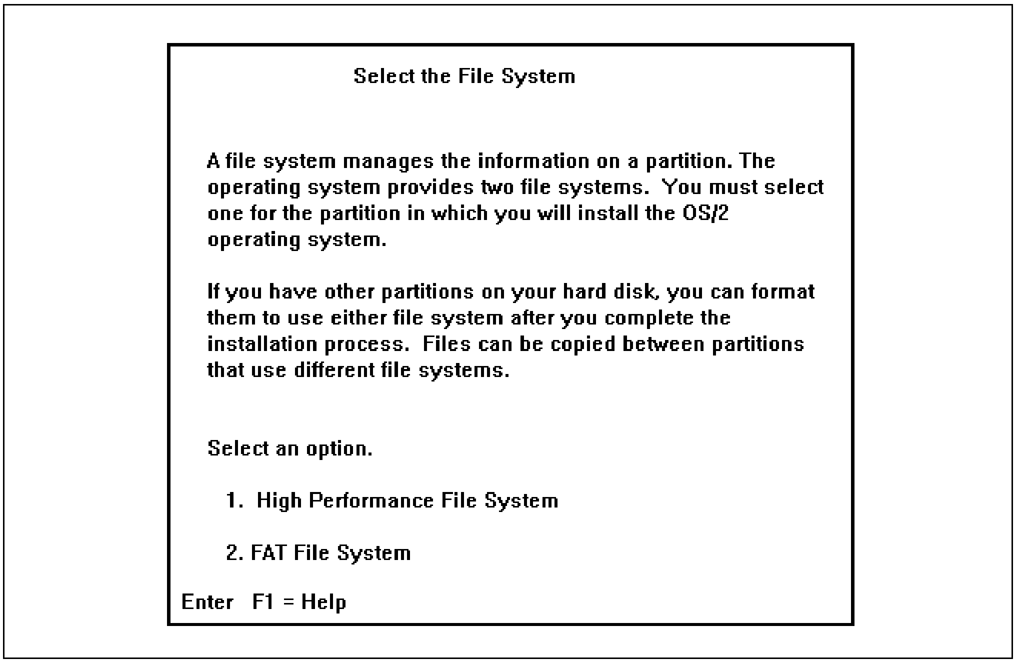
k. Remove the diskette from drive A:. Insert the Installation Diskette into drive A:.

Press **ENTER** to continue.

l. When prompted, reinsert the OS/2 Diskette 1 and press **ENTER**.

OS/2 now boots and displays installation information panels. From the Welcome panel, press **ENTER**. Select the **Advanced Installation** and **Accept the drive** option when requested.

The File system selection screen is displayed. Refer to Figure 6-13 on page 6-14.



Select the File System

A file system manages the information on a partition. The operating system provides two file systems. You must select one for the partition in which you will install the OS/2 operating system.

If you have other partitions on your hard disk, you can format them to use either file system after you complete the installation process. Files can be copied between partitions that use different file systems.

Select an option.

1. High Performance File System
2. FAT File System

Figure 6-13 File system selection

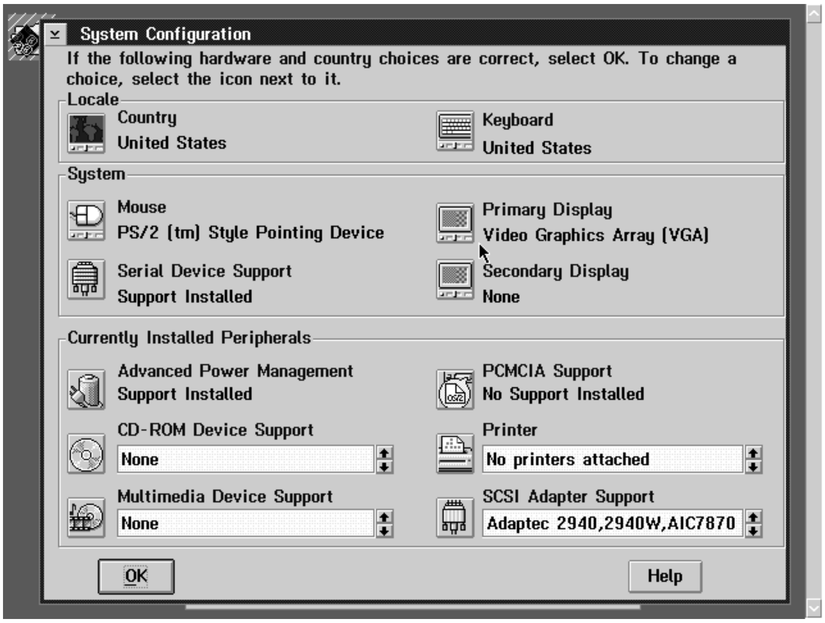
Step 5 Choose the **High Performance File System** selection and press **ENTER**. The hard disk partition will now be formatted.

☞ **Note**

Diskette installations request diskettes 2, 3, 4, 5, 6 and then request the OS/2 installation diskette again. CD-ROM installations prompt to remove diskettes prior to booting the system. MCA systems may request the insertion of the system's reference diskette.

Step 6 Follow the instructions to remove and insert additional diskettes.

The System Configuration screen displays. Refer to Figure 6-14 on page 6-15.



System Configuration

If the following hardware and country choices are correct, select OK. To change a choice, select the icon next to it.

Locale

Country: United States

Keyboard: United States

System

Mouse: PS/2 (tm) Style Pointing Device

Primary Display: Video Graphics Array (VGA)

Serial Device Support: Support Installed

Secondary Display: None

Currently Installed Peripherals

Advanced Power Management: Support Installed

PCMCIA Support: No Support Installed

CD-ROM Device Support: None

Printer: No printers attached

Multimedia Device Support: None

SCSI Adapter Support: Adaptec 2940,2940W,AIC7870

Figure 6-14 System Configuration

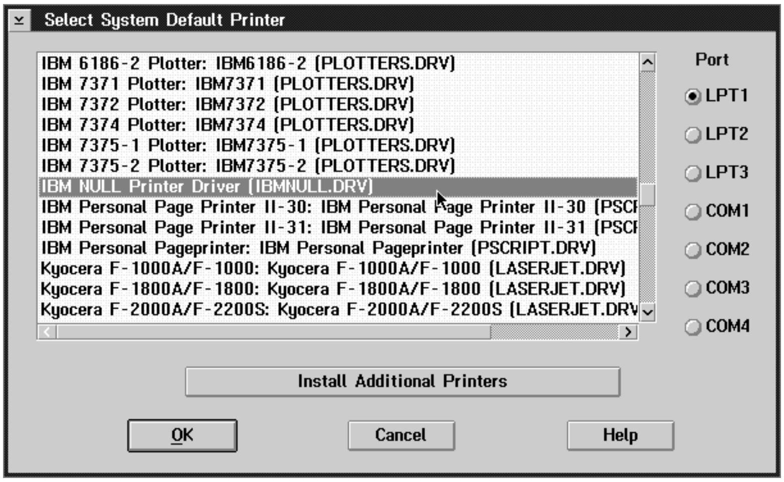
☞ Note

AMU controllers with CD-ROM support need to have the correct **CD-ROM Device Support** selected. COMPUDYNE controller installations offer a selection of *OTHER*, which is incorrect and needs to be changed to *Non-listed IDE CD-ROM*.

Step 7 Verify the displayed options and correct the **Country**, **Keyboard**, **Primary Display**, and **CD-ROM Device Support** selections by clicking on the associate icon, if necessary.
In **Country** settings set the Codepage to **Multilingual** (importended for the correct Codepage 850 as the first page)
The currently installed peripheral listing should match your controller configuration.

Select and press the **OK** push-button to continue.

The Select System Default Printer screen displays. Refer to Figure 6-15 on page 6-16.



IBM 6186-2 Plotter: IBM6186-2 (PLOTTERS.DRV)
IBM 7371 Plotter: IBM7371 (PLOTTERS.DRV)
IBM 7372 Plotter: IBM7372 (PLOTTERS.DRV)
IBM 7374 Plotter: IBM7374 (PLOTTERS.DRV)
IBM 7375-1 Plotter: IBM7375-1 (PLOTTERS.DRV)
IBM 7375-2 Plotter: IBM7375-2 (PLOTTERS.DRV)
IBM NULL Printer Driver (IBMNULL.DRV)
IBM Personal Page Printer II-30: IBM Personal Page Printer II-30 (PSC
IBM Personal Page Printer II-31: IBM Personal Page Printer II-31 (PSC
IBM Personal Pageprinter: IBM Personal Pageprinter (PSCRIPT.DRV)
Kyocera F-1000A/F-1000: Kyocera F-1000A/F-1000 (LASERJET.DRV)
Kyocera F-1800A/F-1800: Kyocera F-1800A/F-1800 (LASERJET.DRV)
Kyocera F-2000A/F-2200S: Kyocera F-2000A/F-2200S (LASERJET.DRV

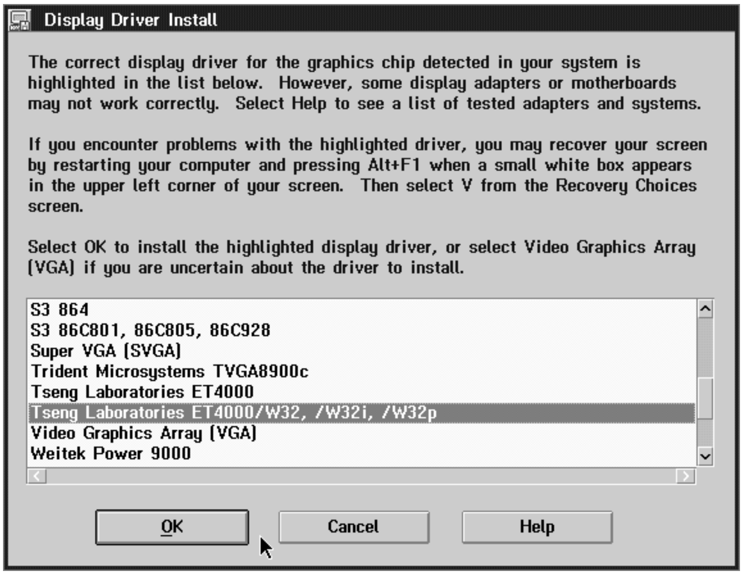
Port: ● LPT1 ○ LPT2 ○ LPT3 ○ COM1 ○ COM2 ○ COM3 ○ COM4

Figure 6-15 Select System Default Printer

Step 8 If a printer is not attached, select **IBM NULL Printer Driver**. If an optional printer is attached, select the appropriate printer driver.

Select and press the **OK** push-button to continue.

The Display Driver Install screen is displayed. Refer to Figure 6-16 on page 6-17.



The correct display driver for the graphics chip detected in your system is highlighted in the list below. However, some display adapters or motherboards may not work correctly. Select Help to see a list of tested adapters and systems.

If you encounter problems with the highlighted driver, you may recover your screen by restarting your computer and pressing Alt+F1 when a small white box appears in the upper left corner of your screen. Then select V from the Recovery Choices screen.

Select OK to install the highlighted display driver, or select Video Graphics Array (VGA) if you are uncertain about the driver to install.

- S3 864
- S3 86C801, 86C805, 86C928
- Super VGA (SVGA)
- Trident Microsystems TVGA8900c
- Tseng Laboratories ET4000
- Tseng Laboratories ET4000/W32, /W32i, /W32p
- Video Graphics Array (VGA)
- Weitek Power 9000

Figure 6-16 Display Driver Install

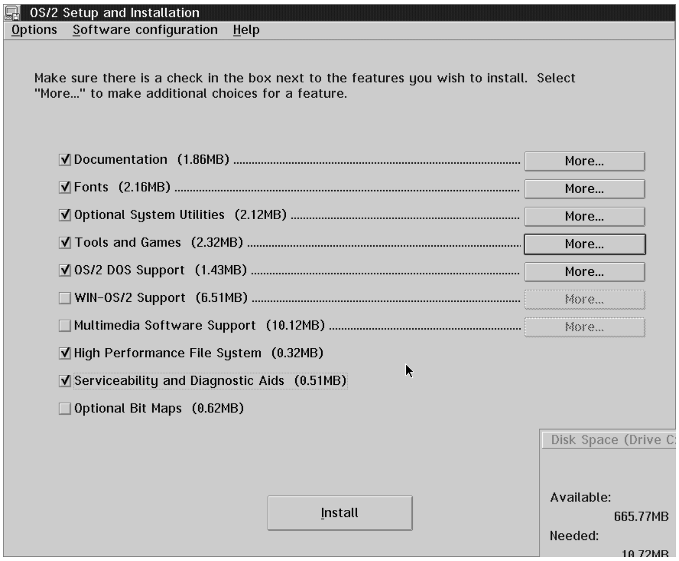
Step 9 Accept the selected default driver. Select and press the **OK** push-button.

The System Configuration screen appears.

Figure 6-17

Step 10 Select and press the **OK** push-button again to continue the installation process.

The OS/2 Setup and Installation screen displays. Refer to Figure 6-18 on page 6-18.



Make sure there is a check in the box next to the features you wish to install. Select "More..." to make additional choices for a feature.

- ☑ Documentation (1.86MB) .... More...
- ☑ Fonts (2.16MB) .... More...
- ☑ Optional System Utilities (2.12MB) .... More...
- ☑ Tools and Games (2.32MB) .... More...
- ☑ OS/2 DOS Support (1.43MB) .... More...
- ☐ WIN-OS/2 Support (6.51MB) .... More...
- ☐ Multimedia Software Support (10.12MB) .... More...
- ☑ High Performance File System (0.32MB)
- ☑ Serviceability and Diagnostic Aids (0.51MB)
- ☐ Optional Bit Maps (0.62MB)

Disk Space (Drive C

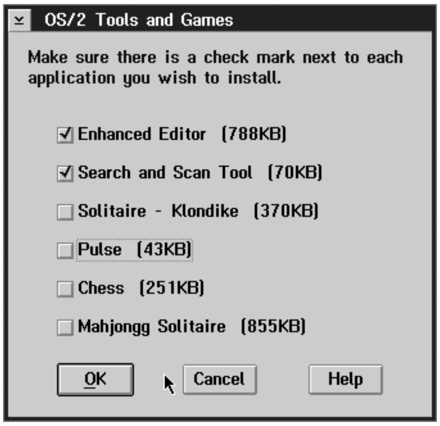
Available: 665.77MB

Needed: 10.72MB

Figure 6-18 OS/2 Setup and Installation

Step 11 Deselect the **Optional Bit Maps.** Deselect the **Multimedia Software Support**. Deselect the **Win OS/2 Support** and then select and press the **More...** push-button for the **Tools and Games** selection.

The OS/2 Tools and Games screen is displayed. See Figure 6-19.



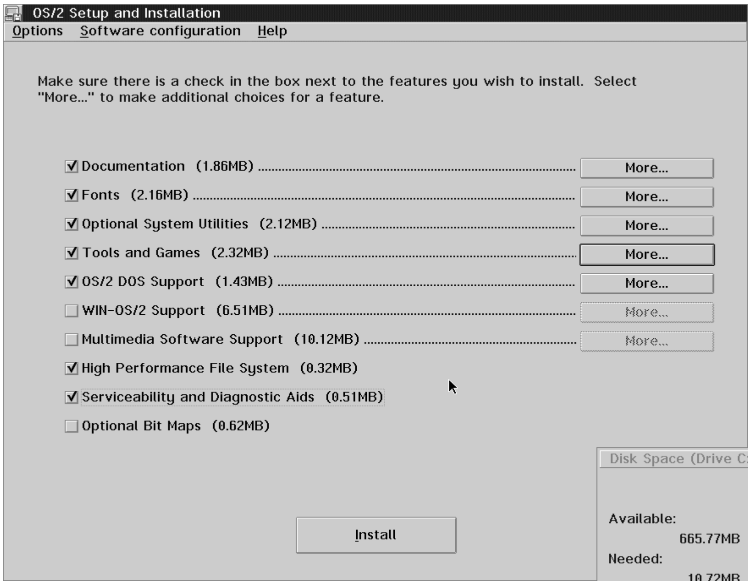
Make sure there is a check mark next to each application you wish to install.

- ☑ Enhanced Editor (788KB)
- ☑ Search and Scan Tool (70KB)
- ☐ Solitaire - Klondike (370KB)
- ☐ Pulse (43KB)
- ☐ Chess (251KB)
- ☐ Mahjongg Solitaire (855KB)

Figure 6-19 OS/2 Tools and Games

Step 12 Deselect **Solitaire**, **Pulse**, **Chess**, and **Mahjongg Solitaire**. Select and press the **OK** push-button to continue.

The OS/2 Setup and Installation screen appears. See Figure 6-20.



Make sure there is a check in the box next to the features you wish to install. Select "More..." to make additional choices for a feature.

☑ Documentation (1.86MB)
☑ Fonts (2.16MB)
☑ Optional System Utilities (2.12MB)
☑ Tools and Games (2.32MB)
☑ OS/2 DOS Support (1.43MB)
☐ WIN-OS/2 Support (6.51MB)
☐ Multimedia Software Support (10.12MB)
☑ High Performance File System (0.32MB)
☑ Serviceability and Diagnostic Aids (0.51MB)
☐ Optional Bit Maps (0.62MB)

Available:
665.77MB
Needed:
10.72MB

Figure 6-20 OS/2 Setup and Installation

Step 13 Select and press the **Install** push-button to continue.

Step 14 In the Advanced Options window, deselect **Add existing programs to your Desktop** and press the **OK** push-button.

Note

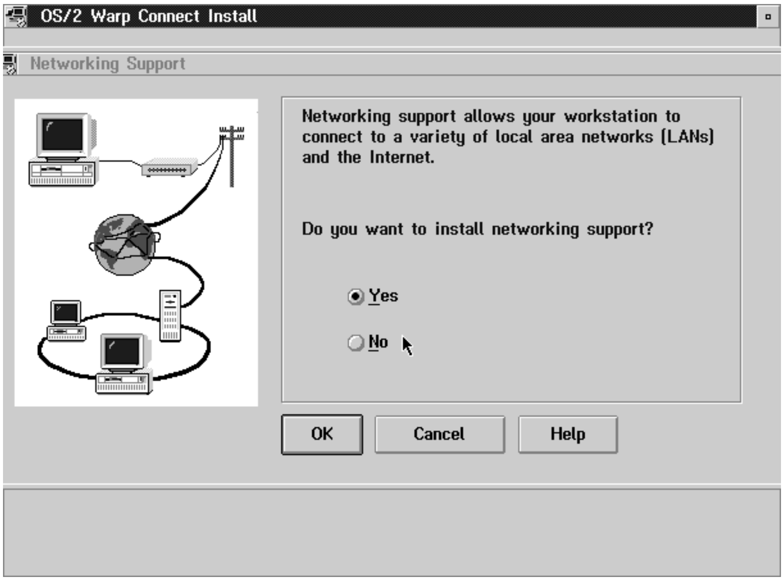
The following sub-steps are a guide through the TCP/IP support installation included in OS/2 Warp Connect. Standard OS/2 Warp requires the installation of the TCP/IP for OS/2 software package.

Step 15 If installing *OS/2 Warp*, continue with Step 16.

If installing the OS/2 Warp Connect:

The OS/2 Warp Connect Install network support screen displays. Refer to Figure 6-21 on page 6-20.

Continue with Step 15a.



OS/2 Warp Connect Install

Networking Support

Networking support allows your workstation to connect to a variety of local area networks (LANs) and the Internet.

Do you want to install networking support?

● Yes

○ No

Figure 6-21 OS/2 Networking Support

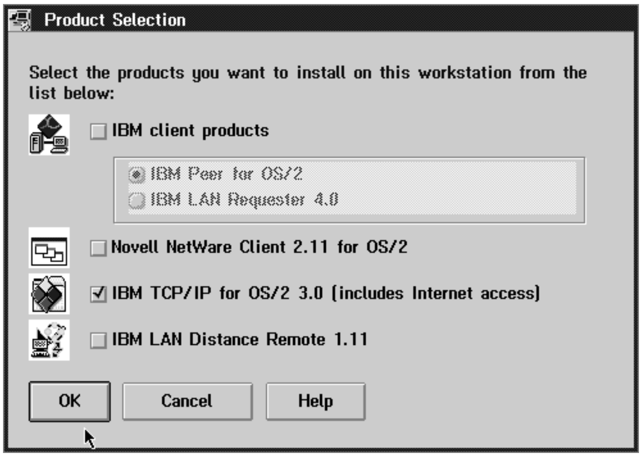
Note

If the TCP/IP communications protocol will not be used for any host-to-AMU communication, install network support anyhow, as it facilitates the adapter installation. The protocol may be easily changed later by the MPTS configuration utility, explained in a following chapter.

a. In the Networking Support window:

- select the **Yes** button if network support should be installed. Select and press the **OK** push-button. Continue with step b.
- select the **No** button if network support is not required. Select and press the **OK** push-button. Continue with Step 16.

The Product Selection screen appears. Refer to Figure 6-22 on page 6-21.



Product Selection

Select the products you want to install on this workstation from the list below:

☐ IBM client products

● IBM Peer for OS/2

○ IBM LAN Requester 4.0

☐ Novell NetWare Client 2.11 for OS/2

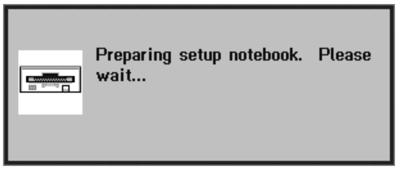
☑ IBM TCP/IP for OS/2 3.0 (includes Internet access)

☐ IBM LAN Distance Remote 1.11

Figure 6-22 Product Selection

b. In the Product Selection window, select the **IBM TCP/IP for OS/2 3.0** check mark. Select and press the **OK** push-button.

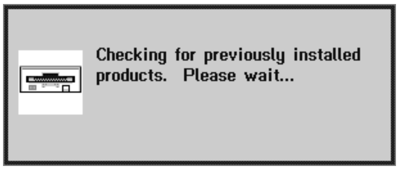
OS/2 Warp Connect now prepares the installation setup notebook. See Figure 6-23.



Preparing setup notebook. Please wait...

Figure 6-23 OS/2 notebook preparation

The OS/2 product verification screen displays. See Figure 6-24.

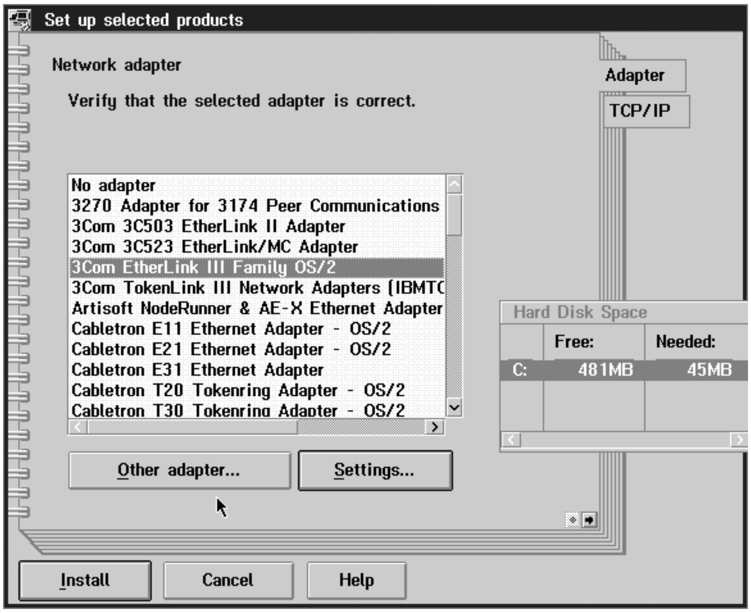


Checking for previously installed products. Please wait...

Figure 6-24 OS/2 product verification

OS/2 Warp Connect also determines which network adapters are installed to allow correct network configurations.

The Set up selected products screen is displayed. See Figure 6-25.



Set up selected products

Network adapter

Verify that the selected adapter is correct.

No adapter
3270 Adapter for 3174 Peer Communications
3Com 3C503 EtherLink II Adapter
3Com 3C523 EtherLink/MC Adapter
3Com EtherLink III Family OS/2
3Com TokenLink III Network Adapters (IBMTC
Artisoft NodeRunner & AE-X Ethernet Adapter
Cabletron E11 Ethernet Adapter - OS/2
Cabletron E21 Ethernet Adapter - OS/2
Cabletron E31 Ethernet Adapter
Cabletron T20 Tokenring Adapter - OS/2
Cabletron T30 Tokenring Adapter - OS/2

Hard Disk Space

	Free:	Needed:
C:	481MB	45MB

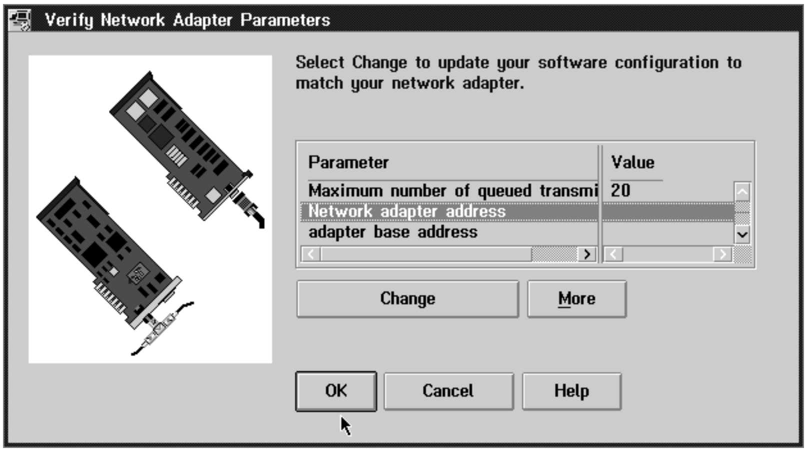
Figure 6-25 Set up selected products

☞ Note

If multiple network adapters are installed, select only one for either FDDI, Token-Ring, or Ethernet during this installation process. Configure the remaining adapters with the MPTS utility, explained in a following chapter.

c. Accept or select the installed network adapter selection check mark. Select and press the **Settings...** push-button to continue.

The Verify Network Adapter Parameters screen appears. Refer to Figure 6-26 on page 6-23.


Verify Network Adapter Parameters

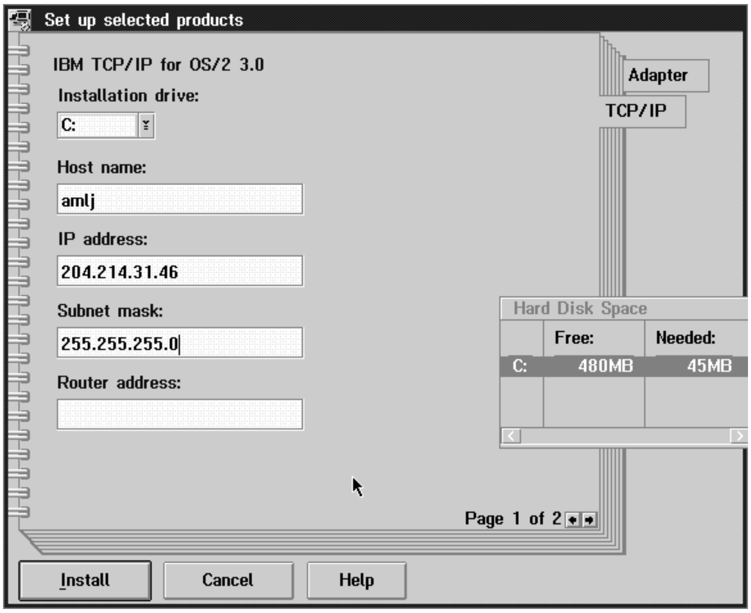
Select Change to update your software configuration to match your network adapter.

Parameter	Value
Maximum number of queued transmi	20
Network adapter address	
adapter base address	

Figure 6-26 Verify Network Adapter Parameters

d. View and accept the displayed adapter configuration values. Change values only if the adapter documentation, or AMU controller adapter card configurations instruct you to do so. Select and press the **OK** push-button to continue.

The Set up selected products screen displays. Refer to Figure 6-27 on page 6-24.



IBM TCP/IP for OS/2 3.0

Installation drive: C:

Host name: amlj

IP address: 204.214.31.46

Subnet mask: 255.255.255.0

Router address:

Hard Disk Space

	Free:	Needed:
C:	480MB	45MB

Page 1 of 2

Figure 6-27 TCP/IP connection information

Note

Router information is required if the controller connects to the host across multiple networks.

e. Configure TCP/IP parameters. Enter the following parameter:

- host name: ASCII name to identify the AMU-PC in the network (this parameter are not used in the AMU software)
- , IP address in the 32-bit dotted decimal noted form (aaa.bbb.ccc.ddd) to identify the AMU in the Internet or Intranet
- subnet mask in the 32-bit dotted decimal notation for specify how much ofthe local address portion of the IP-addree are reserved for the subnet work address (e.g.255.255.255.0)
- router address: address in the network which should used to transfer the communication packages to the communicatio partner (optional).

Select the next page in the Set up selected products window.

The Set up selected products child screen is displayed. Refer to Figure 6-28 on page 6-25.

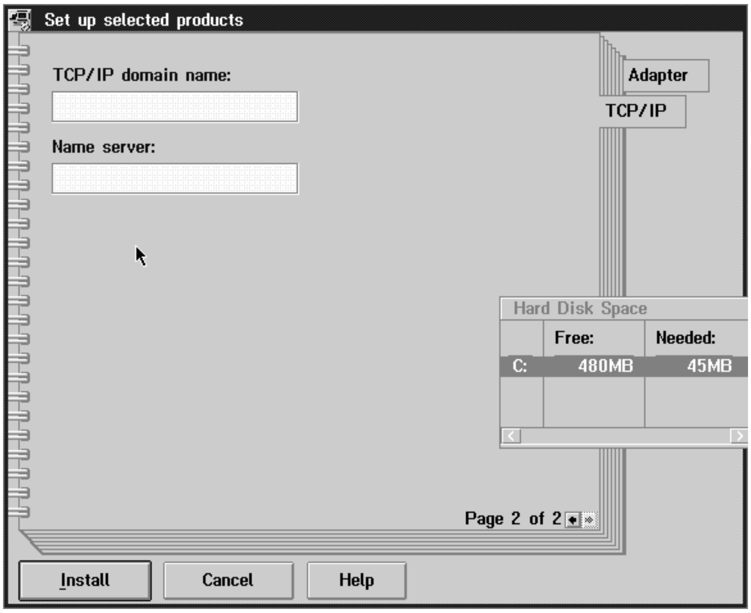


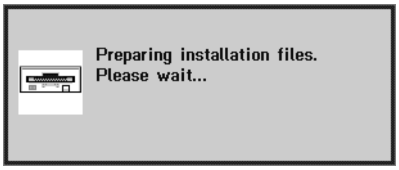
Figure 6-28 Set up selected products

f. Configure additional TCP/IP parameters.The requested parameters are optional.

- domain name: name of the domain, where the AMU-PC reside to complete the fully-quallified host name in the network (use this parameter only with a name server)
- name server: address of the machine with the function to resolve hostnames to IP-addresses (use this parameter together with the domain name).

Select and press the **Install** push-button to install and configure TCP/IP support. Refer to Figure 6-28.

OS/2 prepares the installation files. See Figure 6-29.

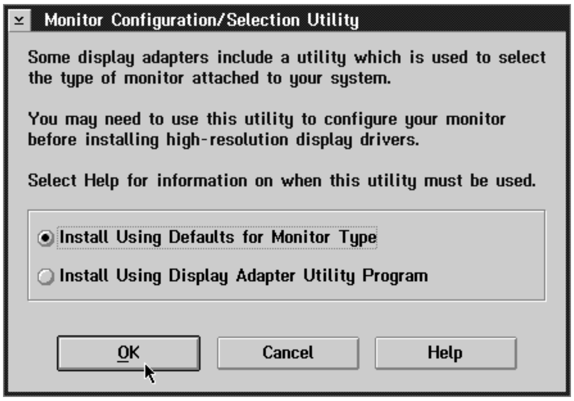


Preparing installation files.
Please wait...

Figure 6-29 Network support preparation

Step 16 Follow the instructions on the screen and insert diskettes as prompted. Insert the display driver and printer driver diskettes as prompted.

The Monitor Configuration/Selection Utility screen appears. See Figure 6-30



Monitor Configuration/Selection Utility

Some display adapters include a utility which is used to select the type of monitor attached to your system.

You may need to use this utility to configure your monitor before installing high-resolution display drivers.

Select Help for information on when this utility must be used.

● Install Using Defaults for Monitor Type

○ Install Using Display Adapter Utility Program

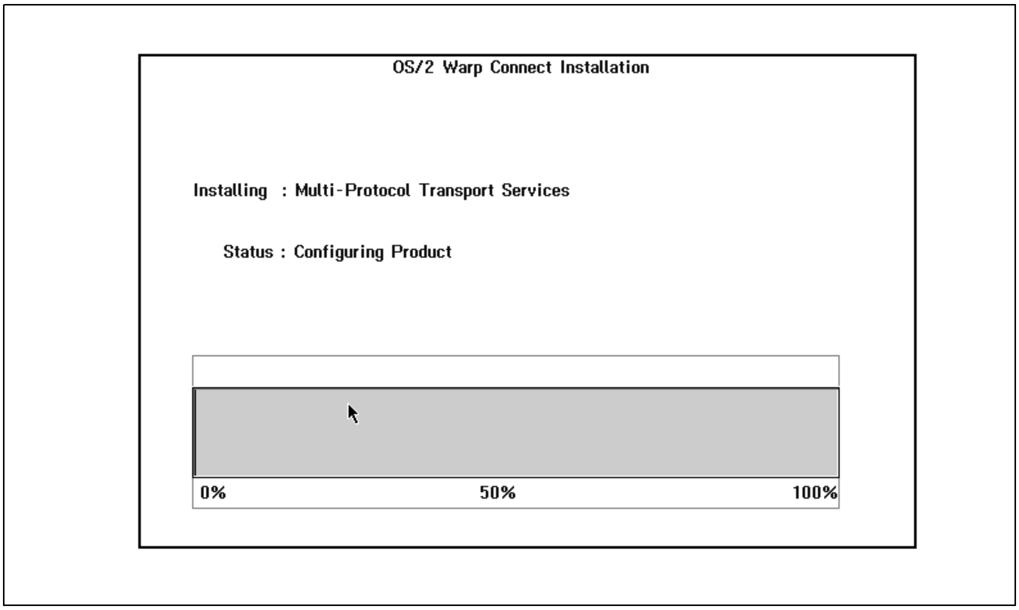
Figure 6-30 Monitor configuration

☞ **Note**

The display turns blank for several seconds while OS/2 is determining configuration values.

Step 17 Select the **Install Using Default for Monitor Type** button. Select and press the **OK** push-button to continue.

After the display drivers are installed, the MPTS Installation window is displayed. This screen indicates the progression of the installation process. Refer to Figure 6-31 on page 6-27.



OS/2 Warp Connect Installation

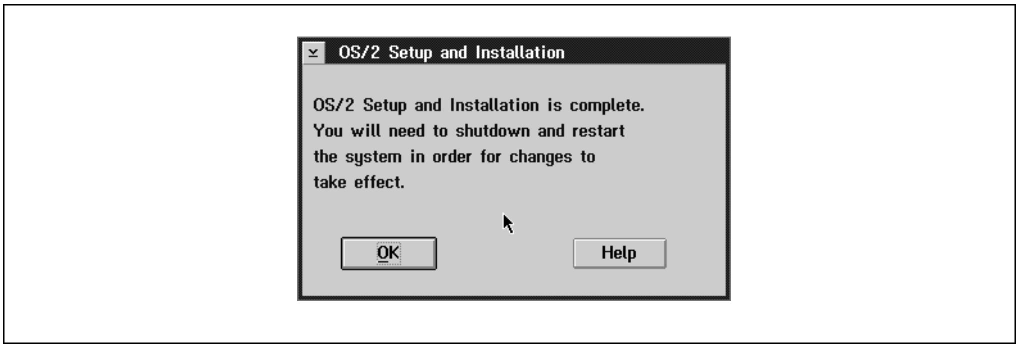
Installing : Multi-Protocol Transport Services

Status : Configuring Product

Figure 6-31 MPTS Installation

OS/2 Warp Connect installs **MPTS**.

The OS/2 Setup and Installation screen displays. See Figure 6-32.



OS/2 Setup and Installation

OS/2 Setup and Installation is complete. You will need to shutdown and restart the system in order for changes to take effect.

Figure 6-32 Installation completion

Step 18 The installation is now complete. Press the **OK** push-button to acknowledge the message. OS/2 shuts down and boots.

Additional Display Driver Installation

The following sections describe the installation procedures for display drivers which are currently not distributed with OS/2 Warp. The installations are necessary to set the screen resolutions to 1024x768x256 for AMU controller models IBM PC-750 and COMPUDYNE P100.

S3 864, S3 868 (32Bit) Display Driver

☞ **Note**

Other display driver installations may vary slightly in the installation procedure. Check the driver documentation and diskette README files for further detail.

The *S3 864, S3 868 [32 Bit] Display Driver* installation is required to support the S3 Vision864 video controller in the IBM PC-750 AMU controller. Add the display driver to the OS/2 display driver selection list with the following procedure.

Step 1 Select an OS/2 window from the LaunchPad. See Figure 6-33.

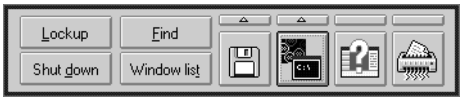
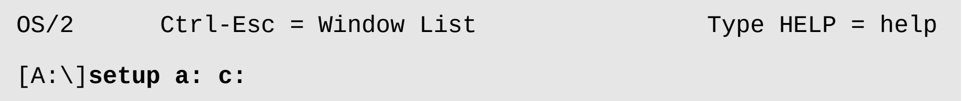


Figure 6-33 OS/2 LaunchPad

The OS/2 Window appears. See Figure 6-34.

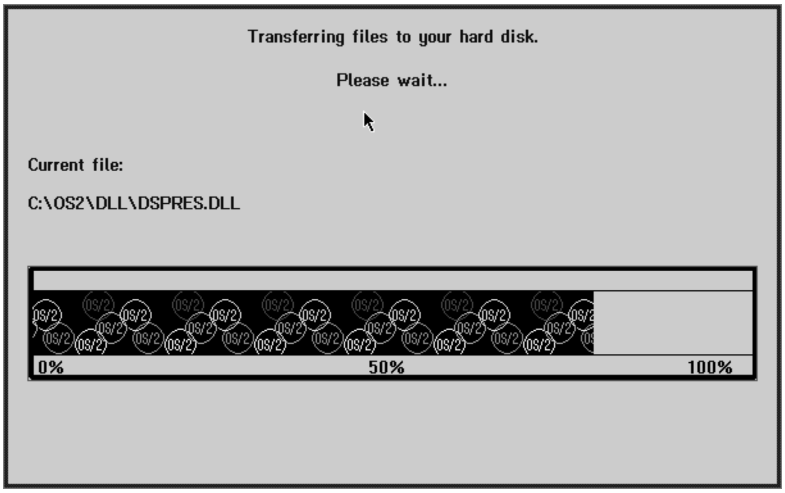


```
OS/2      Ctrl-Esc = Window List                Type HELP = help

[A:\]setup a: c:
```

Figure 6-34 OS/2 Window

Step 2 Insert the display driver diskette into drive A:. Change to the A: drive and type `SETUP A: C:`.

The File transfer screen display to indicate the transfer progress. See Figure 6-35.



Transferring files to your hard disk.

Please wait...

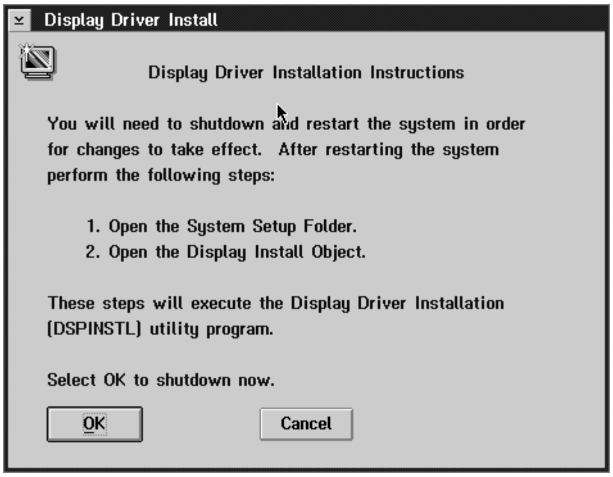
Current file:

C:\OS2\DLL\DSPRES.DLL

Figure 6-35 File transfer

The setup program will transfer files to the hard disk to update the display driver configuration selections.

When all files have been transferred, the Display Driver Install screen is displayed. Refer to Figure 6-36 on page 6-29.



Display Driver Installation Instructions

You will need to shutdown and restart the system in order for changes to take effect. After restarting the system perform the following steps:

1. Open the System Setup Folder.
2. Open the Display Install Object.

These steps will execute the Display Driver Installation (DSPINSTL) utility program.

Select OK to shutdown now.

Figure 6-36 Display Driver Install

Step 3 When prompted to perform an OS/2 shutdown, remove the diskette from drive A: and select the **OK** push-button to start the automatic shutdown procedure. Press <Ctrl+Alt+Del> to boot.

Step 4 Open the **OS/2 System - Icon View** and scroll the window to select and double-click the **Display Driver Install** icon. See Figure 6-37.

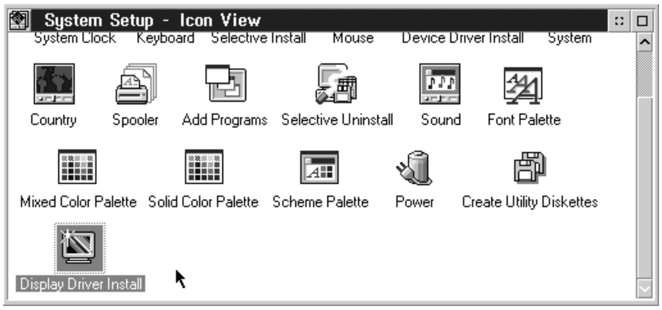
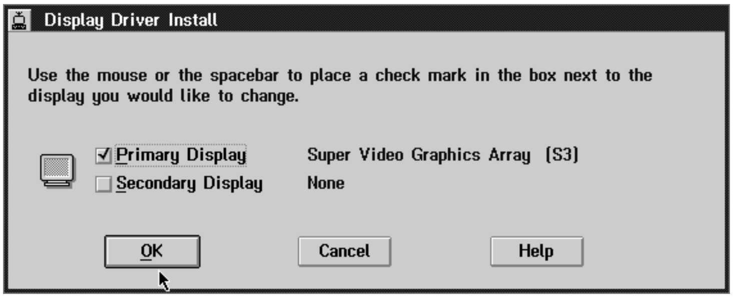


Figure 6-37 Display Driver Install icon

The Display Driver Install screen displays. Refer to Figure 6-38 on page 6-30.



Display Driver Install

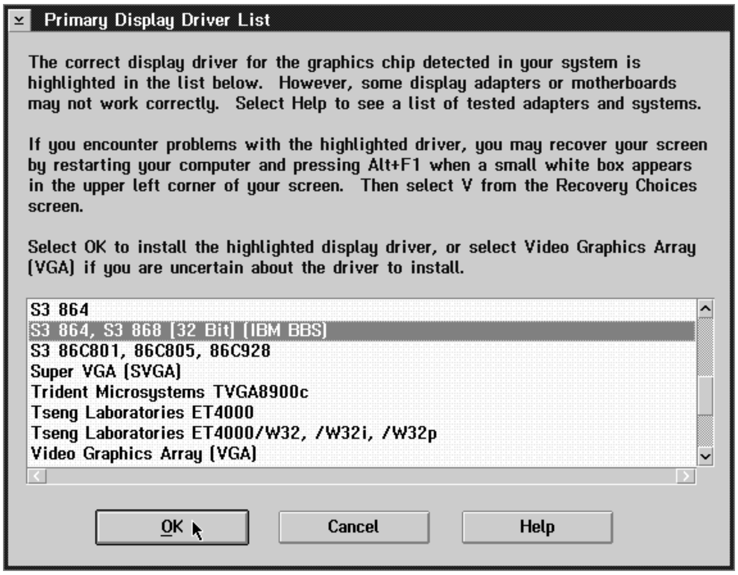
Use the mouse or the spacebar to place a check mark in the box next to the display you would like to change.

☑ Primary Display Super Video Graphics Array (S3)
☐ Secondary Display None

Figure 6-38 Display Selection

Step 5 Check the **Primary Display** checkbox. Select and press the **OK** push-button.

The Display Driver Selection List is displayed. See Figure 6-39.



The correct display driver for the graphics chip detected in your system is highlighted in the list below. However, some display adapters or motherboards may not work correctly. Select Help to see a list of tested adapters and systems.

If you encounter problems with the highlighted driver, you may recover your screen by restarting your computer and pressing Alt+F1 when a small white box appears in the upper left corner of your screen. Then select V from the Recovery Choices screen.

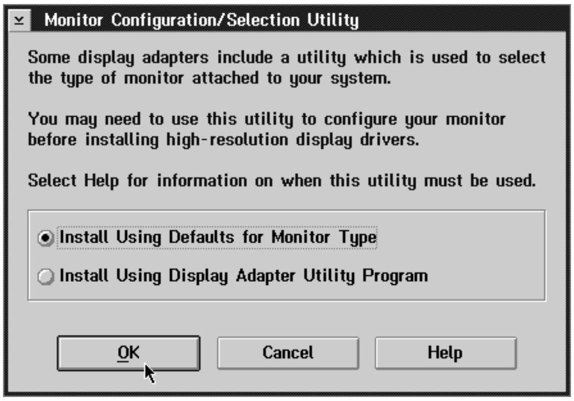
Select OK to install the highlighted display driver, or select Video Graphics Array (VGA) if you are uncertain about the driver to install.

- S3 864
- S3 864, S3 868 (32 Bit) (IBM BBS)
- S3 86C801, 86C805, 86C928
- Super VGA (SVGA)
- Trident Microsystems TVGA8900c
- Tseng Laboratories ET4000
- Tseng Laboratories ET4000/W32, /W32i, /W32p
- Video Graphics Array (VGA)

Figure 6-39 Display Driver Selection List

Step 6 Select the newly installed display driver from the Primary Display Driver List. Select and press the **OK** push-button.

The Monitor Configuration/Selection Utility screen displays. See Figure 6-40.



Some display adapters include a utility which is used to select the type of monitor attached to your system.

You may need to use this utility to configure your monitor before installing high-resolution display drivers.

Select Help for information on when this utility must be used.

● Install Using Defaults for Monitor Type

○ Install Using Display Adapter Utility Program

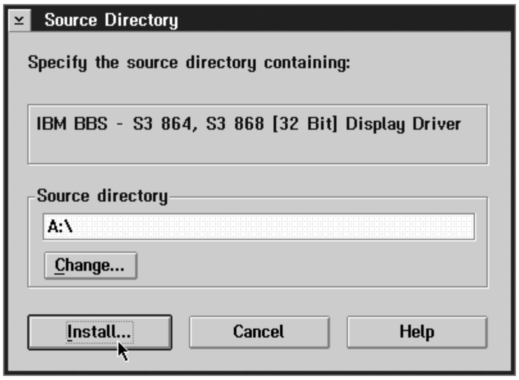
Figure 6-40 Monitor Configuration

☞ Note

The display installation utility checks the hardware configuration to verify adapter support. The process takes several seconds and blanks the screen.

Step 7 Select **Install Using Defaults for Monitor Type**. Select and press the **OK** push-button.

The Source Directory screen is displayed. See Figure 6-41.



Source Directory

Specify the source directory containing:

IBM BBS - S3 864, S3 868 [32 Bit] Display Driver

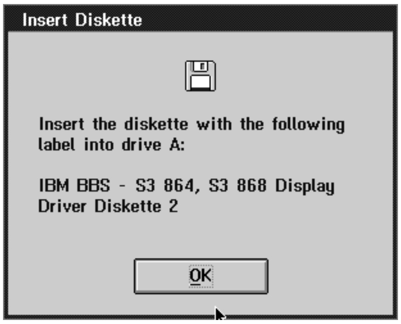
Source directory

A:\

Figure 6-41 Source Directory

Step 8 Insert the display driver diskette in drive A: and press the **Install...** push-button.

The Insert Diskette screen appears. See Figure 6-42.



Insert Diskette

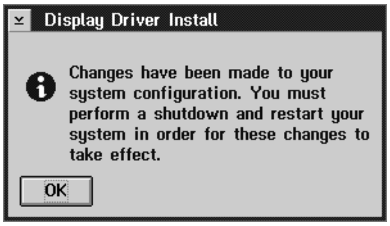
Insert the diskette with the following label into drive A:

IBM BBS - S3 864, S3 868 Display Driver Diskette 2

Figure 6-42 Insert Diskette

Step 9 Follow the instructions on the screen to remove and insert additional diskettes.

The Display Driver Install screen displays. See Figure 6-43.



Changes have been made to your system configuration. You must perform a shutdown and restart your system in order for these changes to take effect.

Figure 6-43 Display Driver Install

Step 10 After the display drivers are copied, do not boot OS/2 to apply the changes. Press the **OK** push-button to continue.

The System Setup - Icon View screen is displayed. Refer to Figure 6-44 on page 6-34.

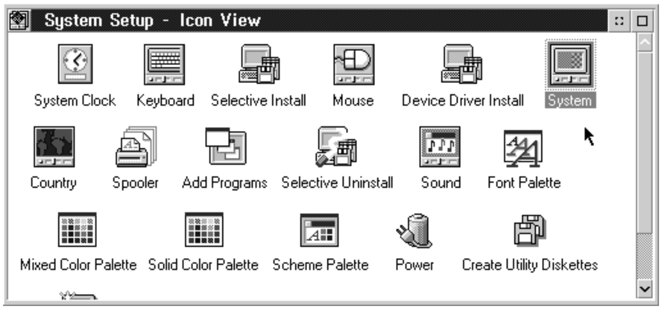
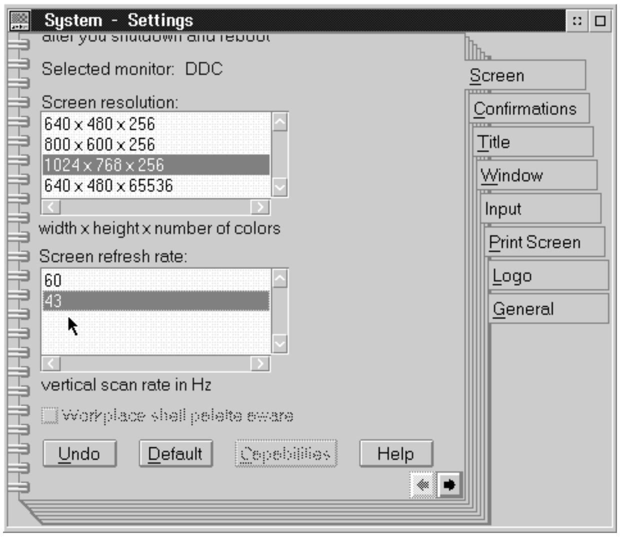


Figure 6-44 System Setup - Icon View

Step 11 Select and double-click the **System** icon.

The System Settings screen appears. See Figure 6-45.



Selected monitor: DDC

Screen resolution:
640 x 480 x 256
800 x 600 x 256
1024 x 768 x 256
640 x 480 x 65536

width x height x number of colors

Screen refresh rate:
60
43

vertical scan rate in Hz

☐ Workplace shell palette aware

Figure 6-45 System Settings

Note

The refresh rate may differ with the selected screen resolution. The display driver documentation gives information on the refresh rate. For MCA controllers, the exact refresh rate is viewed from the reference program on the system partition or reference diskette. If the system boots and the screen remains blank after the OS/2 logo appeared, an incorrect refresh rate is configured.

Step 12 Select the desired screen resolution and refresh rate.

The OS/2 Shutdown screen displays. See Figure 6-46.

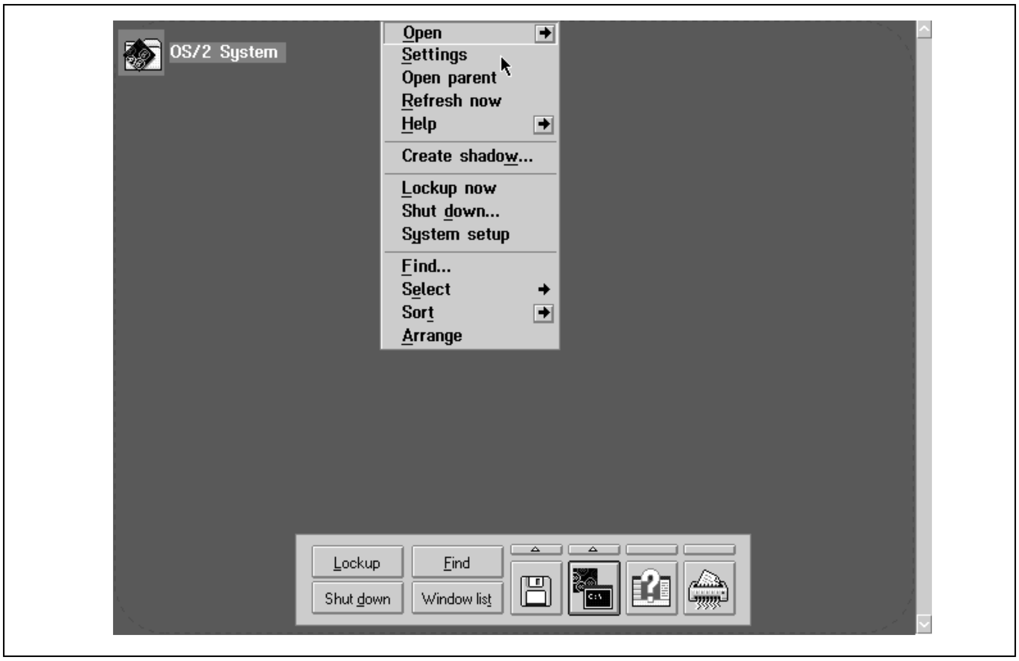


Figure 6-46 OS/2 Shutdown

Step 13 Close the **Settings** notebook and perform a shutdown. Boot to apply the have the changes.

32 Bit S3 Display Driver V2.5

The 32 Bit S3 *Display Driver V2.5* installation is required to support the S3 Stealth 64 DRAM video controller in the COMPUDYNE P100 AMU controller. Add the display driver to the OS/2 display driver selection list with the following procedure:

☞ **Note**
Other display driver installations may vary slightly in the installation procedure. Check the driver documentation and diskette README files for further detail.

Step 1 Select and maximize a DOS window.

☞ **Note**
The 32 Bit S3 display driver V2.5 requires an installation from VGA mode. If the current video driver selection is not a VGA mode, reset the video selection to VGA, prior to installing the S3 drivers.

Step 2 .Insert the display driver diskette 1 of 2 into drive A:. Change to the A: drive and type **S64DMODE** at the prompt to initialize the display configuration and setup utility program.

The Display Configuration and Setup Utility Screen appears.

Step 3 Use the arrow keys to select the *MONITOR* option. Select *GENERIC 90* as the monitor type and press **<ENTER>**.

Step 4 Press the **<ESC>** key to exit the display configuration and setup utility program.

Step 5 Press the **<ENTER>** key to return to the DOS window.

Step 6 Close the DOS window and select an OS/2 window. Change to the OS/2 directory and type **attrib -r -s -h screen0*.sys** to allow updates to the screen driver files.

☞ **Note**
The installation must be performed from the A: drive prompt.

Step 7 Change to the A: drive and start the display driver installation program by typing **S3INST A: C:**.

Step 8 After displaying driver installation information, the driver installation program will prompt to press any key to continue. Once files from diskette 1 of 2 have been copied, the program requests to insert diskette 2 of 2 and completes the display driver installation setup.

Step 9 When prompted to perform an OS/2 shutdown, remove the diskette from drive A: and select the **Shutdown**

push-button to start the shutdown procedure. After the shut down completes, press **<Ctrl+Alt+Del>** to reboot.

☞ **Note**
The S3 display driver installation program causes an OS/2 error during the driver selection. The original OS/2 display driver installation program needs to be restored.

Step 10 Select an OS/2 window from the LaunchPad and change to the C:\OS2\INSTALL directory.

Step 11 Type the command `copy dspinstl.sav dspinstl.exe` to restore the OS/2 display driver installation program.

Step 12 From the OS/2 Desktop, open the **OS/2 System - Icon View** and select the **System Setup** icon.

Step 13 Double-click the **System Setup** icon to display the **System Setup - Icon View** window. Scroll the window to select the **Display Driver Install** icon.

Step 14 Double-click the **Display Driver Install** icon to display the **Display Driver Install** window.

☞ **Note**
The primary display has the Super Video Graphics Array (S3) selected. This driver will always be selected, even though the 32 Bit S3 Display Drivers V2.5 are copied and configured.

Step 15 Check the **Primary Display** checkbox. Select and press the **OK** push-button.

Step 16 Select the newly installed *32 Bit S3 Display Drivers V2.5* from the Primary Display Driver List. Select and press the **OK** push-button

☞ **Note**
The display installation utility checks the hardware configuration to verify adapter support. The process takes several seconds and blanks the screen.

Step 17 Select **Install Using Defaults for Monitor Type**. Select and press the **OK** push-button.

Step 18 Insert the display driver diskette 1 of 2 into drive A:. Press the **Install...** push-button.

Step 19 Follow the instructions on the screen to remove and insert diskettes.

Step 20 Once all drivers have been copied, you will be prompted to shut down the controller to activate the changes. Do **not** shut down at this time.

Step 21 Press the **OK** push-button and remove the diskette from drive A:.

Step 22 Open the **System Setup - Icon View** window and select the **System** icon.

Step 23 Double-click the **System** icon to display the **System - Settings** notebook.

Step 24 Select the desired screen resolution and then close the **System - Settings** notebook.

Step 25 Perform an OS/2 shut down and reboot the controller to apply the changes.

Make sure the screen resolution has been changed to the appropriate setting.

The 32 Bit S3 Display Driver V2.5 installation is now complete.

Micro Channel System Program

Installation

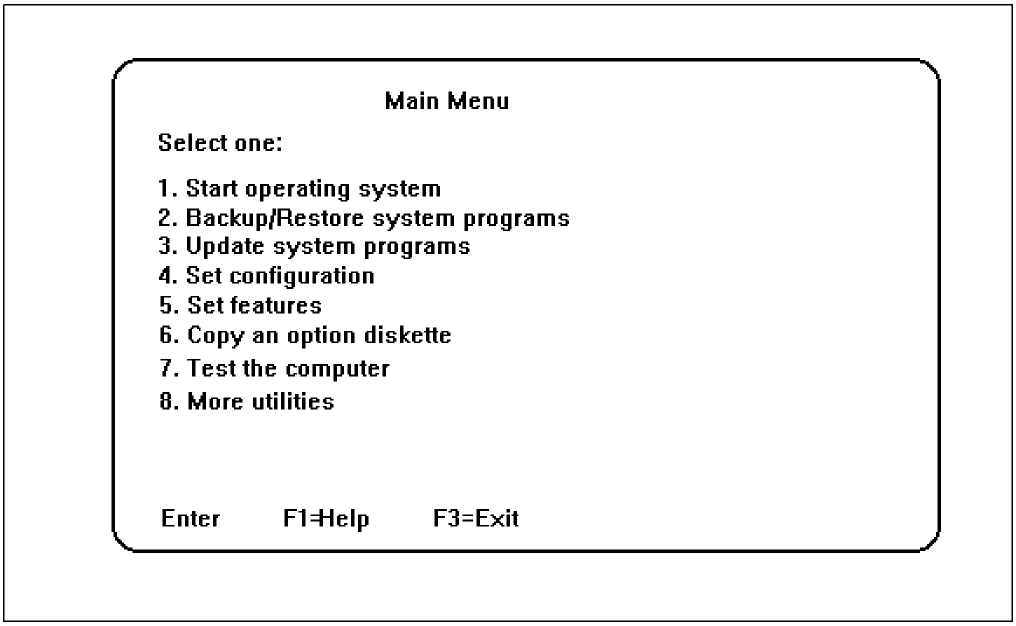
☞ **Note**
Perform these steps only when using a micro-channel AMU controller.

The Micro channel AMU controller is set up with a system partition to provide space on the hard disk for the controller system programs. The following discussion assumes that the controller configuration has been saved and backed up to the reference and diagnostic diskettes. If necessary, these diskettes are available to duplicate the system programs onto the hard disk's system partition.

Perform the following steps to copy the system programs to the hard disk:

Step 1 Insert the 3.5inch reference diskette into drive A: and then boot the AMU controller.

After the system programs are loaded, the Main Menu is displayed to provide selections for hardware configuration options and test procedures. See Figure 6-47.

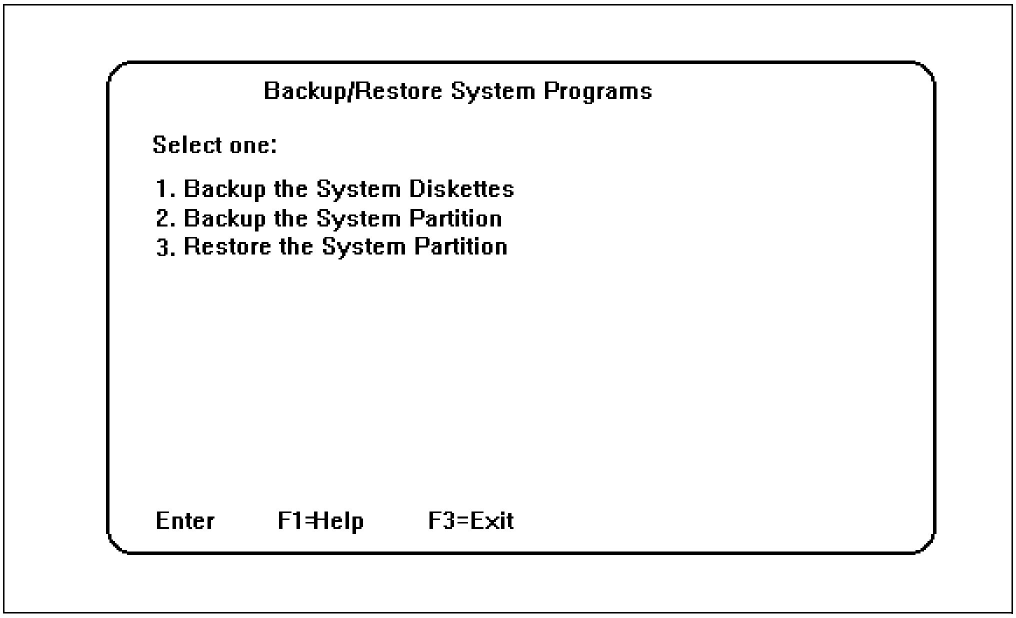


```
                    Main Menu
Select one:

1. Start operating system
2. Backup/Restore system programs
3. Update system programs
4. Set configuration
5. Set features
6. Copy an option diskette
7. Test the computer
8. More utilities



Enter      F1=Help      F3=Exit
```

Figure 6-47 Main Menu

Step 2 From the Main Menu panel select option number **2**, and press **ENTER**.

The Backup/Restore System Programs screen displays. Refer to Figure 6-48 on page 6-40.



Backup/Restore System Programs

Select one:

1. Backup the System Diskettes
2. Backup the System Partition
3. Restore the System Partition

Figure 6-48 Backup/Restore System Programs

☞ **Note**

Make sure that any future hardware configuration modification will also be backed up to diskette to assure that the diskettes always contain updated configuration information.

Step 3 Select option number **3**. Press **ENTER** to copy all data from the reference diskette and diagnostic diskettes to the system partition.

Follow the instructions on the screen to remove and insert diskettes. Once the system programs are copied, store the diskettes in a safe place.

Step 4 Press **F3** to exit the system program.

OS/2 Desktop Preparation

After completing an OS/2 installation and booting the AMU controller, a Using OS/2 window may be displayed to offer OS/2 tutorial information. OS/2 Warp Connect does not display such window automatically. Close the window by pressing the **Quit** push-button.

The OS/2 Desktop requires some organization and preparation to display only those icons that are required for easy access and AMU operation. The steps below detail the Desktop preparation to select desktop settings, drag often used program icons, set the screen resolution and modify the *CONFIG.SYS* file to disable the restart of interrupted OS/2 sessions on reboot.

Perform the following steps to organize the desktop:

Step 1 Open the OS/2 System icon by double-clicking the left mouse button.

The OS/2 System - Icon View appears. See Figure 6-49.

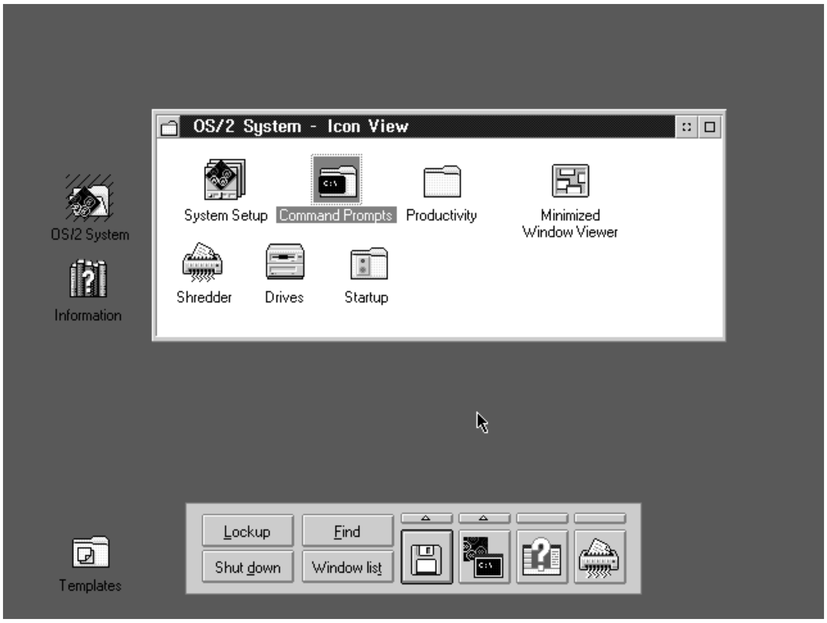


Figure 6-49 OS/2 Desktop

Step 2 Clean the Desktop of any unnecessary icons:

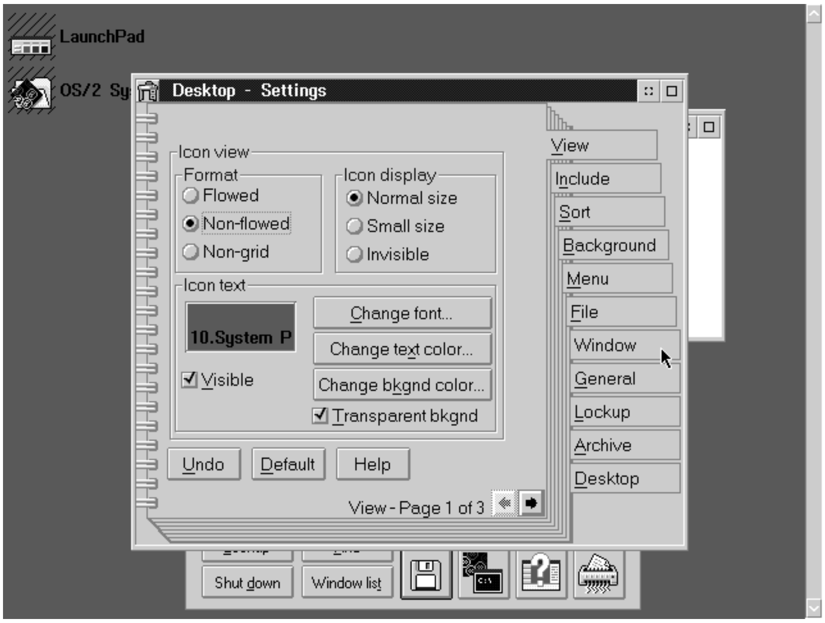
- Click the left mouse button on the **Information** icon and then press and hold the right mouse button to drag and drop the icon to the OS/2 System - Icon View window. Release the right mouse button when the icon has been positioned.
- Repeat the above procedure for all icons, except the **OS/2 System** icon and **MPTS** icon (OS/2 Warp Connect).

☞ Note

Some icons may be covered. Move the LaunchPad and OS/2 System - Icon View window, to drag and drop all icons.

Step 3 Click the right mouse button in an empty area on the Desktop to display the Desktop menu and select the **Settings...** selection.

The Desktop - Settings View notebook page appears. See Figure 6-50.



Desktop - Settings

Icon view

Format
○ Flowed
● Non-flowed
○ Non-grid

Icon display
● Normal size
○ Small size
○ Invisible

Icon text
10.System P
☑ Visible
☑ Transparent bkgnd

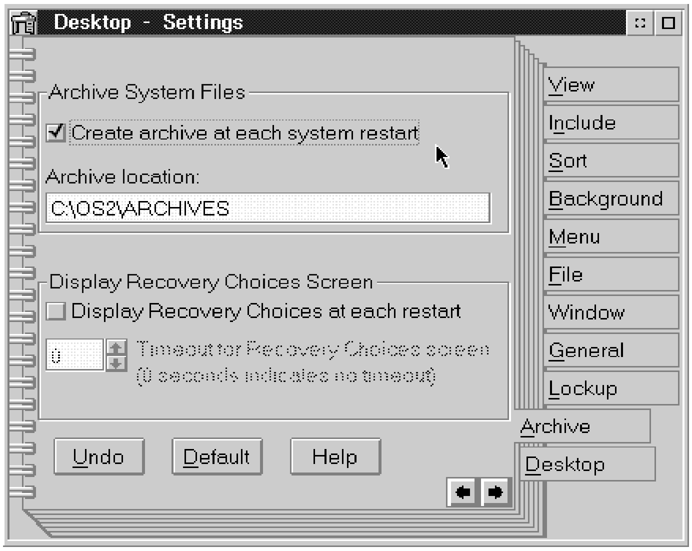
View - Page 1 of 3

Figure 6-50 Desktop - Settings notebook - View

Step 4 In the Desktop - Settings View note book page, enable the **Non-flowed** format option button.

Step 5 Select and click the Archive indicator.

The Desktop - Settings Archive notebook page appears. Refer to Figure 6-51 on page 6-43.



Archive System Files

☑ Create archive at each system restart

Archive location:

C:\OS2\ARCHIVES

Display Recovery Choices Screen

☐ Display Recovery Choices at each restart

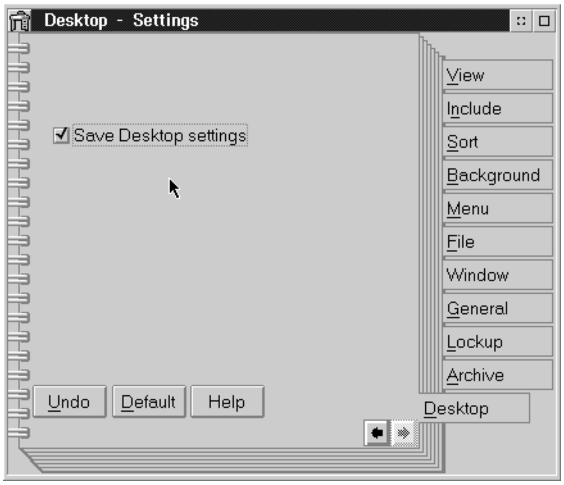
0 Timeout for Recovery Choices screen (0 seconds indicates no timeout)

Figure 6-51 Desktop - Settings notebook - Archive

Step 6 Select the **Create archive at each system restart** checkbox.

Step 7 Select and click the Desktop indicator.

The Desktop - Setting Desktop notebook page appears. See Figure 6-52.



☑ Save Desktop settings

Figure 6-52 Desktop- Settings notebook - Desktop

Step 8 Select the **Save Desktop settings** checkbox.

Step 9 Double click the upper left note book corner to close the notebook.

The OS/2 Desktop displays. See Figure 6-53.

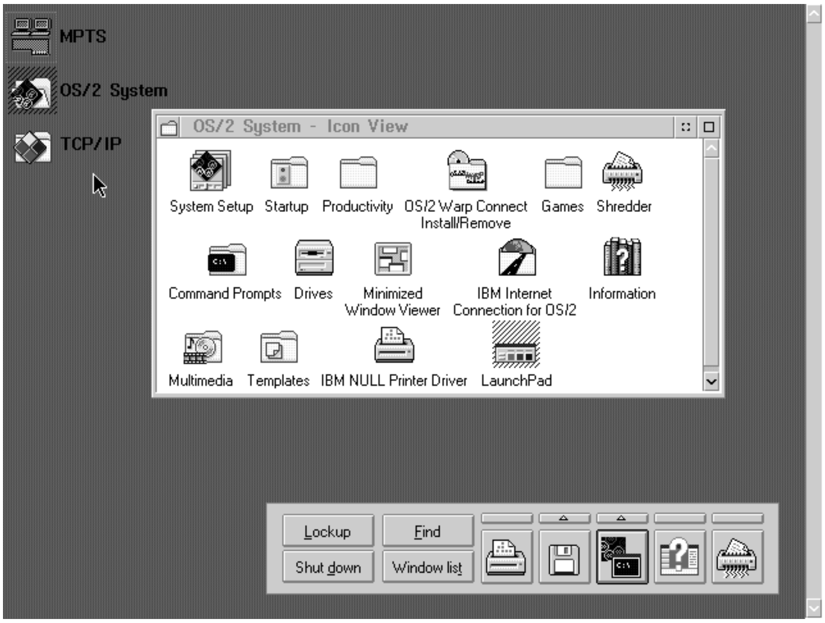


Figure 6-53 OS/2 Desktop

Step 10 If the OS/2 Warp Connect Installations installed TCP/IP support, the TCP/IP icon is located in the OS/2 System - Icon View window and should be dragged to the OS/2 desktop.

Drag and drop the TCP/IP icon to the Desktop to make it easily available for future configurations.

Step 11 Select and double-click the **System Setup** icon.

The System Setup - Icon View is displays. Refer to Figure 6-54 on page 6-45.

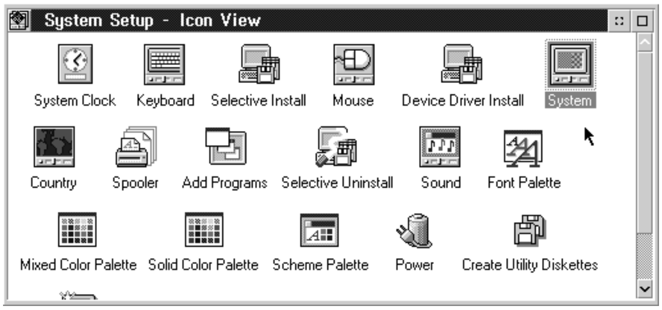
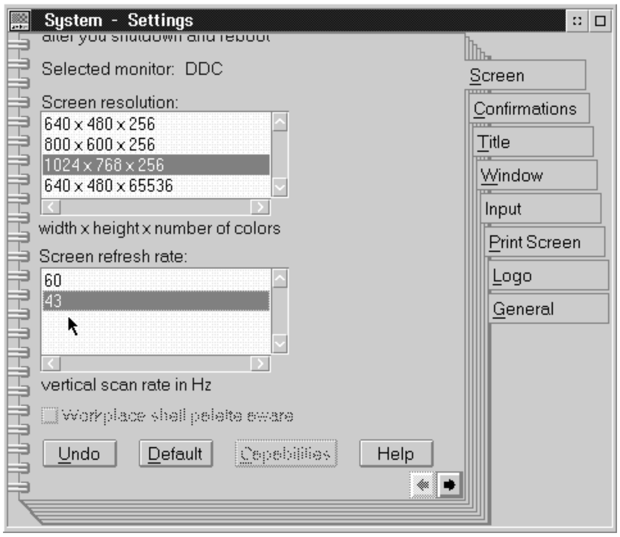


Figure 6-54 System Setup - Icon View

Step 12 Select and double-click the **System** icon.

The System - Setting notebook appears. See Figure 6-55.


System - Settings

after you shutdown and reboot

Selected monitor: DDC

Screen resolution:

- 640 x 480 x 256
- 800 x 600 x 256
- 1024 x 768 x 256
- 640 x 480 x 65536

width x height x number of colors

Screen refresh rate:

- 60
- 43

vertical scan rate in Hz

☐ Workplace shell palette aware

Figure 6-55 System - Settings notebook

☞ **Note**
If the selection of a 1024x768x256 screen resolution is not available, a different display driver needs to be selected or installed. Refer to section *Additional Display Driver Installation* for more details.

Step 13 Select a screen resolution of 1024x768x256 and close the **Settings** notebook.

Step 14 Close the System - Settings notebook.

Step 15 Close the OS/2 System - Icon View window.

Step 16 Select and maximize an OS/2 window and type

```
tedit c:\config.sys
```

— or —

```
epm c:\config.sys
```

to view the *CONFIG.SYS* file.

☞ **Note**
The CONFIG.SYS file contains statements to restart programs and connections on every reboot. Since the AMU controller startup sequence starts all necessary processes and connections, the CONFIG.SYS should be modified to disable unnecessary sessions.

Step 17 Add the line

```
SET RESTARTOBJECTS=STARTUPFOLDERSONLY
```

Step 18 Locate the line

```
SET AUTOSTART=
```

and remove the words *PROGRAMS* and *CONNECTIONS* from the AUTOSTART statement.

```
SET AUTOSTART=TASKLIST,FOLDERS,LAUNCHPAD
```

Step 19 Save the modified *CONFIG.SYS* file and close the OS/2 window.

Step 20 Shutdown OS/2 from either the Desktop menu selection or with the LaunchPad push-button to save the changes. If desired, continue with additional installation procedures described in the following sections.

The OS/2 Desktop preparation is now complete.

Adding Program Icons to the Desktop

Programs may be added to the Desktop for easy access and simple invocation. Rather than starting a program from the command line within a DOS or OS/2 window, the program may be started by double-clicking the program's icon on the Desktop.

The following example explains the steps involved to add a Presentation Manager (PM) program to the Desktop icon selection. The steps listed add the AML/J *PMMAINT.EXE* utility program, which is distributed with the AMU AMS and copied to the *C:\AMU* directory to the Desktop.

Step 1 Select and double-click the **OS/2 System** icon on the Desktop.

Step 2 Select and double-click the **Templates** icon.

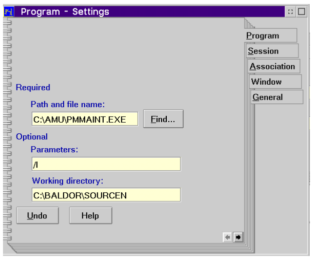
Step 3 Select the *Program* folder and click the right mouse button to display the folder menu.

Step 4 Select and click on **Copy...** .

Step 5 Highlight the *Desktop* icon and select and press the **Copy** push-button.

A copy of the Program folder is copied to the Desktop.

Step 6 Select and click the right mouse button on the Desktop's *Program* folder. From the folder menu, select and click **Settings...** .



Path and file name: C:\AMU\PMMAINT.EXE

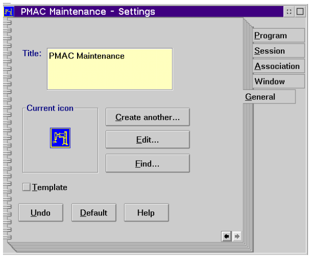
Parameters: /I

Working directory: C:\BALDOR\SOURCEN

Figure 6-56 Program -Settings notebook

Step 7 In the *Program* notebook page, enter *C:\AMU\PMMAINT.EXE* in the **Path and file name:** entry field. Tab to the **Working directory:** entry field and enter *C:\AMU*.

Select and click **the General** notebook page.



PMAC Maintenance - Settings

Title: PMAC Maintenance

Figure 6-57 Program -Settings notebook

Step 8 Enter a program title in the **Title:** entry field and uncheck the **Template** checkbox.

Step 9 Close the *Program-Settings* notebook.

The program may now be started by clicking the added program folder on the Desktop.

7

Software Installation

Overview

The following software installation sections assume that all necessary adapter card installations have been performed and that the OS/2 operating system has been installed successfully. The installation descriptions discuss generic installations from 3.5 inch diskettes and CD-ROM.

Database 2 Software Installation

Database 2 is installed as a single-user, stand-alone OS/2 client. All software modules, including documentation, with the exception of DOS and Windows support, are required.

Determine which software version is being installed, either Version 1.xx or Version 2.xx diskette and CD-ROM, and follow the steps that detail the appropriate installation procedures.

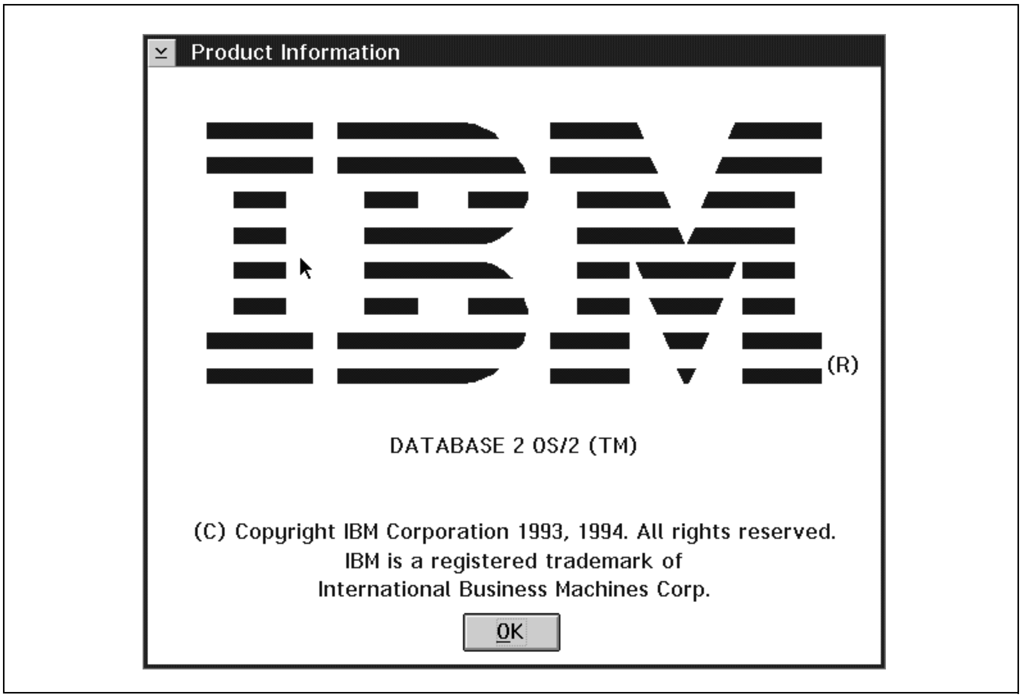
Version 1.xx Installation

The steps discuss an installation from 3.5 inch diskettes.

Step 1 Insert the installation diskette into drive A:. From the Desktop, select an OS/2 window and change to the C: drive

Step 2 Type `A:\DBINST` and press **ENTER**.

The Product Information screen appears. Refer to Figure 7-1 on page 7-4.



Product Information

DATABASE 2 OS/2 (TM)

(C) Copyright IBM Corporation 1993, 1994. All rights reserved.
IBM is a registered trademark of
International Business Machines Corp.

Figure 7-1 DB 2 Product Information

Step 3 After the Product Information window is displayed, select and press the **OK** push-button.

The DATABASE 2 OS/2 Install window appears. Refer to Figure 7-2 on page 7-5.

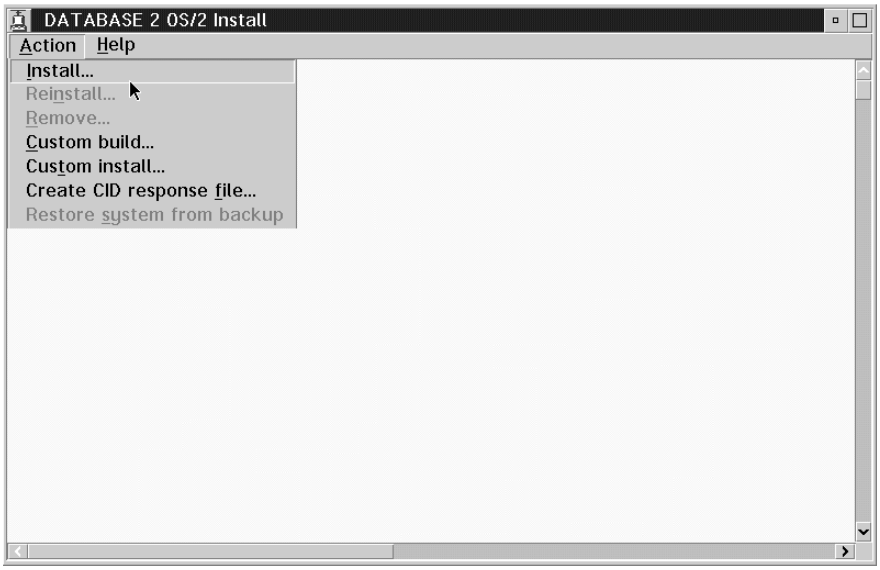
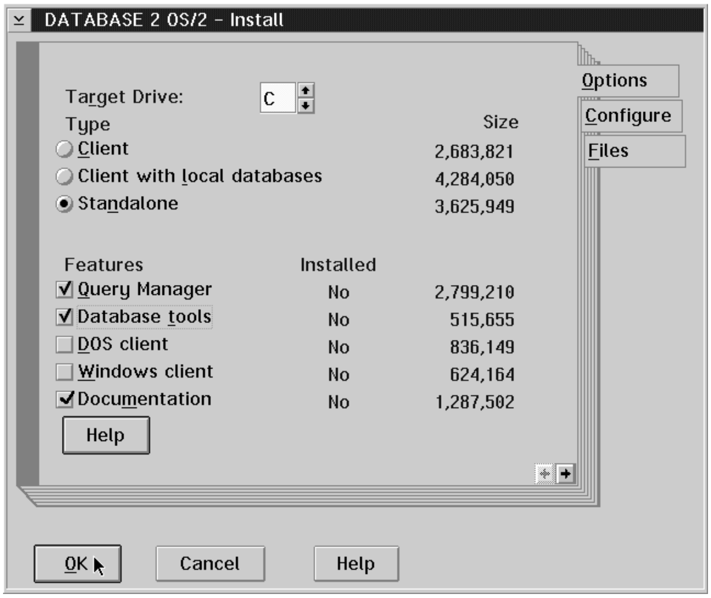


Figure 7-2 DATABASE 2 OS/2 Install

Step 4 After the DATABASE 2 OS/2 Install window is displayed, select **Action** from the action bar.

Step 5 Select **Install...** and press **ENTER**

The DATABASE 2 OS/2 Install child appears. Refer to Figure 7-3 on page 7-6.



DATABASE 2 OS/2 - Install

Target Drive: C

Type	Size
○ Client	2,683,821
○ Client with local databases	4,284,050
● Standalone	3,625,949

Features	Installed	
☑ Query Manager	No	2,799,210
☑ Database tools	No	515,655
☐ DOS client	No	836,149
☐ Windows client	No	624,164
☑ Documentation	No	1,287,502

Figure 7-3 DATABASE 2 OS/2 Install

Step 6 Make the following selections:

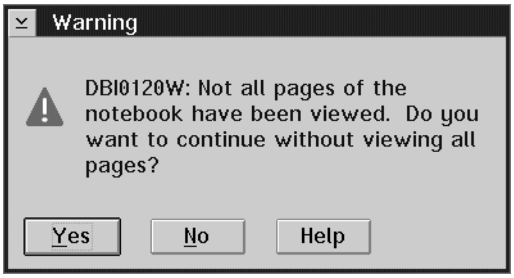
a. Select drive **C:** as the Target Drive

b. Mark the **Stand-alone** button in the Type selection

c. Select the **Query Manager**, **Database Tools**, and **Documentation** check marks in the Features selection.

d. Select and press the **OK** push-button.

The Warning screen appears. Refer to Figure 7-4 on page 7-7.


Warning

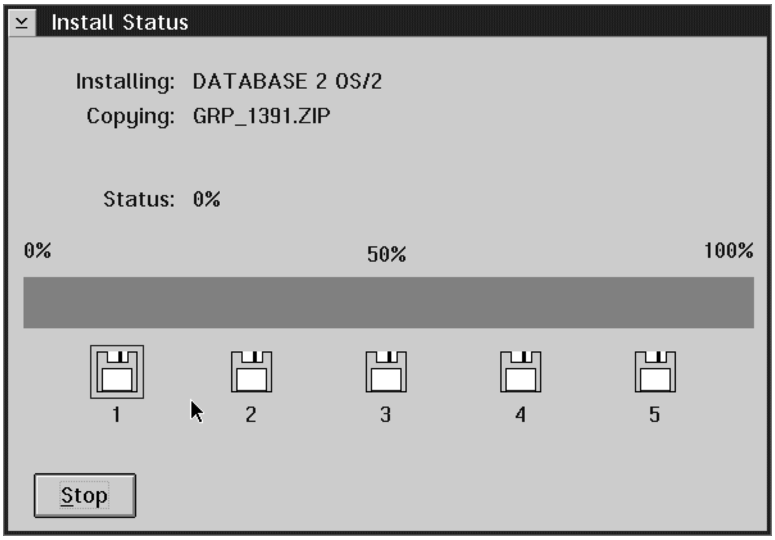
DBI0120W: Not all pages of the notebook have been viewed. Do you want to continue without viewing all pages?

Figure 7-4 Warning

Step 7 Select the **Yes** push-button in the Warning window to skip viewing the remaining installation options. These options remain at default.

Step 8 Database 2 Version 1.xx is installing. The progress window displays file transfer information.

The Install Status screen appears. See Figure 7-5.


Install Status

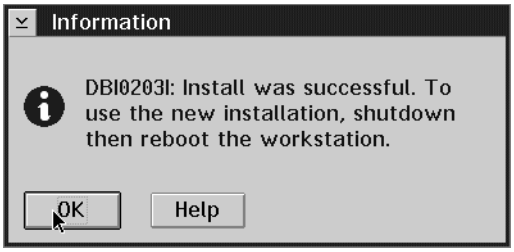
Installing: DATABASE 2 OS/2
Copying: GRP_1391.ZIP

Status: 0%

Figure 7-5 Install Status

Step 9 Remove and insert diskettes as prompted.

After the load is completed, the Information screen is displayed. See Figure 7-6.



DBI0203I: Install was successful. To use the new installation, shutdown then reboot the workstation.

Figure 7-6 Information

Step 10 Select and press the **OK** push-button.

Database Manager 2 is now installed. Close and exit from any remaining windows and display the Desktop. The Desktop will show three additional icons, an IBM DATABASE 2 icon, the First Failure Support Technology/2 (FFST/2) icon, and the User Profile Management Services (UPM Services) icon. See Figure 7-7.

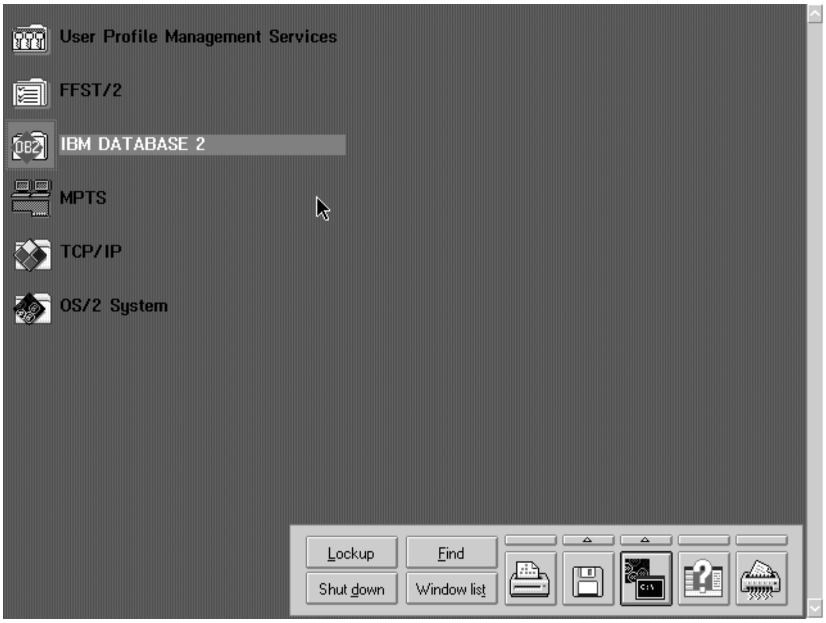


Figure 7-7 OS/2 Desktop after Successful Installation

Step 11 Select **Shutdown** from the OS/2 LaunchPad and boot the AMU controller PC.

☞ **Note**

The Database Manager uses access permission configurations in conjunction with the AMU AMS. Configure the User Profile Management Services as described in the *Chapter 8, Software Configuration*.

Version 2.xx Installation

The installation descriptions in this chapter differ due to diskette and CD-ROM installation requirements and software revision levels. Differences are indicated throughout the software installation.

☞ **Note**

Use the Database 2 CD-ROM ***\EN\DB2\INSTALL*** directory install program. Use the the **\EN** directory install program for select additinal features like ODBC. If the installation program is invoked from the ***\EN*** directory, the installation windows differ slightly from the Figure 7-8. An OK push-button rather than an Exit push-button and additional installation choices appear.

Step 1 Insert the installation diskette into drive A: or the CD-ROM into drive D:. From the Desktop, select an OS/2 window and change to the C: drive.

Step 2 For Version 2.xx diskette:

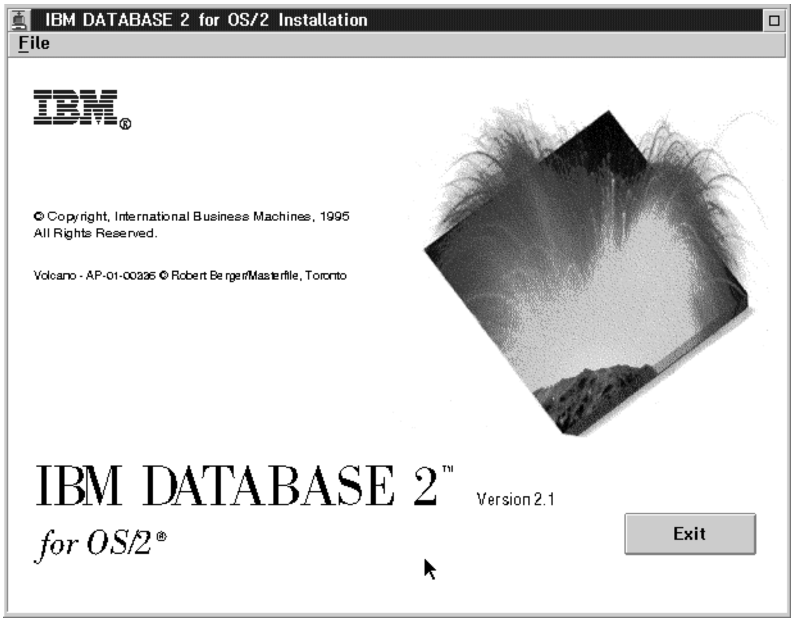
a. Type `A:\INSTALL` and press **ENTER**.

— or —

For Version 2.xx CD-ROM:

a. Type `D:\EN\DB2\INSTALL\INSTALL` and press **ENTER**.

For diskette and CD-ROM, the Product Installation screen appears. Refer to Figure 7-8 on page 7-10.


IBM DATABASE 2 for OS/2 Installation
File
IBM
IBM DATABASE 2™ Version 2.1
for OS/2®
Exit

© Copyright, International Business Machines, 1995
All Rights Reserved.

Volcano - AP-01-00226 © Robert Berger/Masterfile, Toronto

Figure 7-8 DB 2 Product Installation

Step 3 For Version 2.xx diskette:

a. Wait until the Install screen appears.

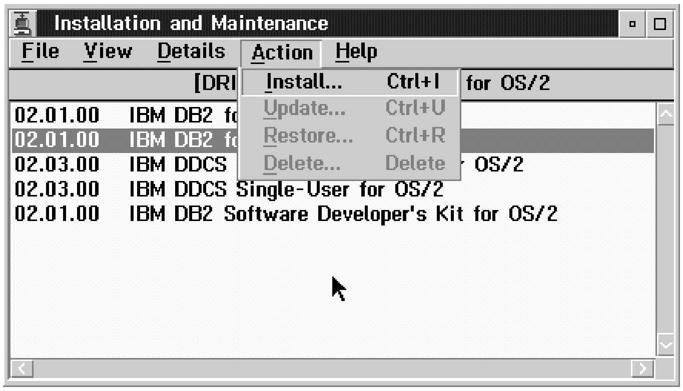
The Install screen appears. Refer to Figure 7-10 on page 7-11.

— or —

For Version 2.xx CD-ROM:

a. Wait until the Installation and Maintenance screen appears.

The Installation and Maintenance screen appears. Refer to Figure 7-9 on page 7-11.



[DRI for OS/2

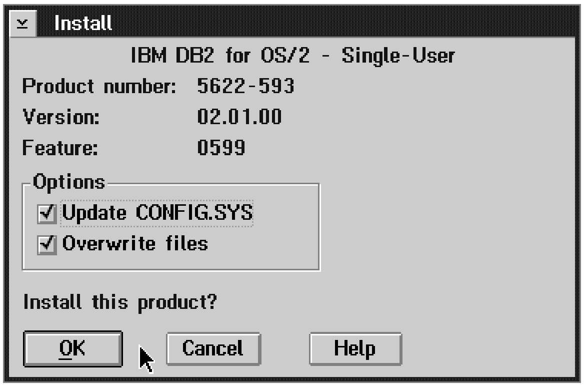
02.01.00 IBM DB2 fo
02.01.00 IBM DB2 fo
02.03.00 IBM DDCS r OS/2
02.03.00 IBM DDCS Single-User for OS/2
02.01.00 IBM DB2 Software Developer's Kit for OS/2

Figure 7-9 Installation and Maintenance

b. Select and highlight **IBM DB2 for OS/2 - Single-User**

c. From the **Action** action bar selection, select **Install...**

The Install screen appears. See Figure 7-10.



IBM DB2 for OS/2 - Single-User
Product number: 5622-593
Version: 02.01.00
Feature: 0599

☑ Update CONFIG.SYS
☑ Overwrite files

Install this product?

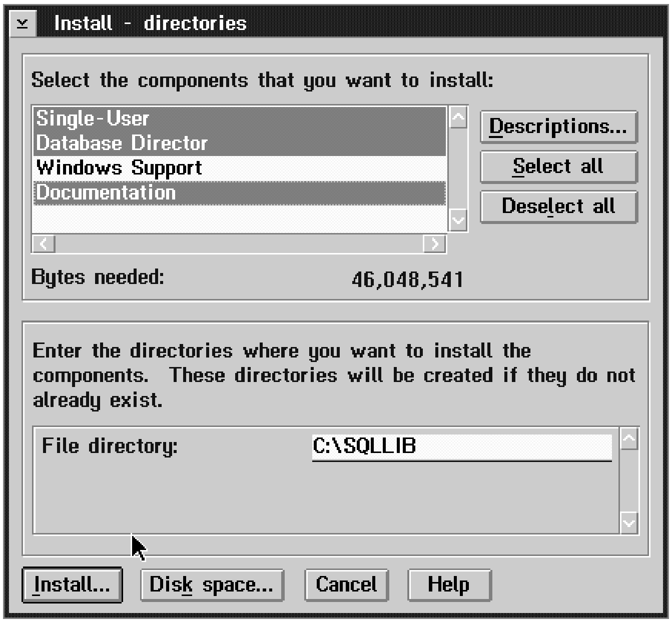
Figure 7-10 Install

Step 4 Make the following selections to install a single-user DB 2 data base:

a. Mark the **Update CONFIG.SYS** and **Overwrite Files** check boxes.

Select and press the **OK** push-button.

The Install - directories screen appears. See Figure 7-11.



Select the components that you want to install:

- Single-User
- Database Director
- Windows Support
- Documentation

Bytes needed: 46,048,541

Enter the directories where you want to install the components. These directories will be created if they do not already exist.

File directory: C:\SQLLIB

Figure 7-11 Install - directories

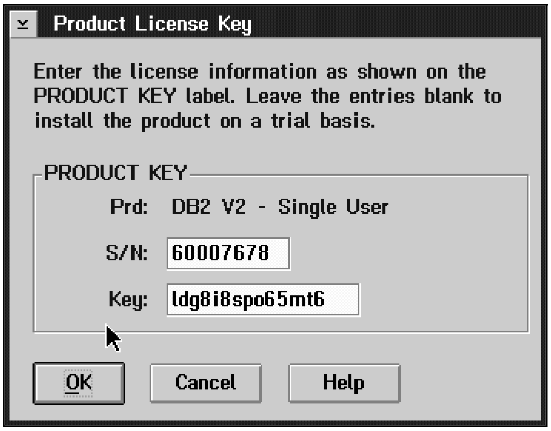
Step 5 Make the following selections:

a. Select and highlight **Single User, Database Director**, and **Documentation**.

b. Select and press the **Install...** push-button.

For CD-ROM installations, the Product License Key screen appears. Refer to Figure 7-12 on page 7-13.

For diskette installations, the Install progress window appears and displays file transfer information. Refer to Figure 7-13 on page 7-14.



Product License Key

Enter the license information as shown on the PRODUCT KEY label. Leave the entries blank to install the product on a trial basis.

PRODUCT KEY

Prd: DB2 V2 - Single User

S/N: 60007678

Key: ldg8i8spo65mt6

Figure 7-12 Product License Key

Step 6 For Version 2.xx diskette:

a. No response is required from the installer.

— or —

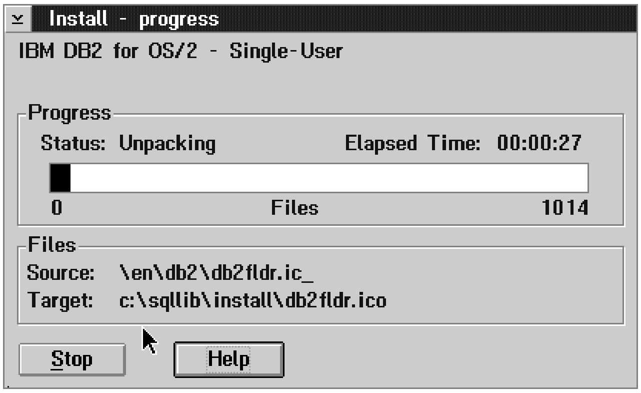
For Version 2.xx CD-ROM

a. Enter the product serial number and key in the S/N and Key entry fields. Select and press the **OK** push-button to continue.

The Install progress window appears and displays file transfer information. Refer to Figure 7-13 on page 7-14.

☞ **Note**

The Product Key information is located on a single label and may be attached to the CD-ROM case.



Install - progress

IBM DB2 for OS/2 - Single-User

Progress

Status: Unpacking Elapsed Time: 00:00:27

Files

Source: \en\db2\db2fldr.ic_

Target: c:\sqllib\install\db2fldr.ico

Figure 7-13 Install progress

Step 7 For Version 2.xx diskette:

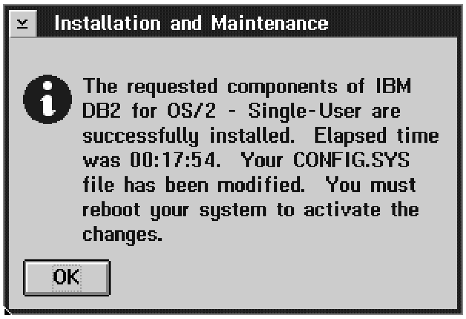
a. Remove and insert diskettes as prompted.

— or —

For Version 2.xx CD-ROM:

a. No response is required from the installer

The Installation and Maintenance screen appears. See Figure 7-14.



Installation and Maintenance

The requested components of IBM DB2 for OS/2 - Single-User are successfully installed. Elapsed time was 00:17:54. Your CONFIG.SYS file has been modified. You must reboot your system to activate the changes.

Figure 7-14 Installation and Maintenance

Step 8 Select and press the **OK** push-button

Database Manager 2 is now installed. Close and exit from any remaining windows and display the Desktop. The Desktop will show three additional icons, an IBM DATABASE 2 icon, the First Failure Support Technology/2 (FFST/2) icon, and the User Profile Management Services (UPM Services) icons. See Figure 7-15.7

Step 9 Select **Exit** to close the Installation program

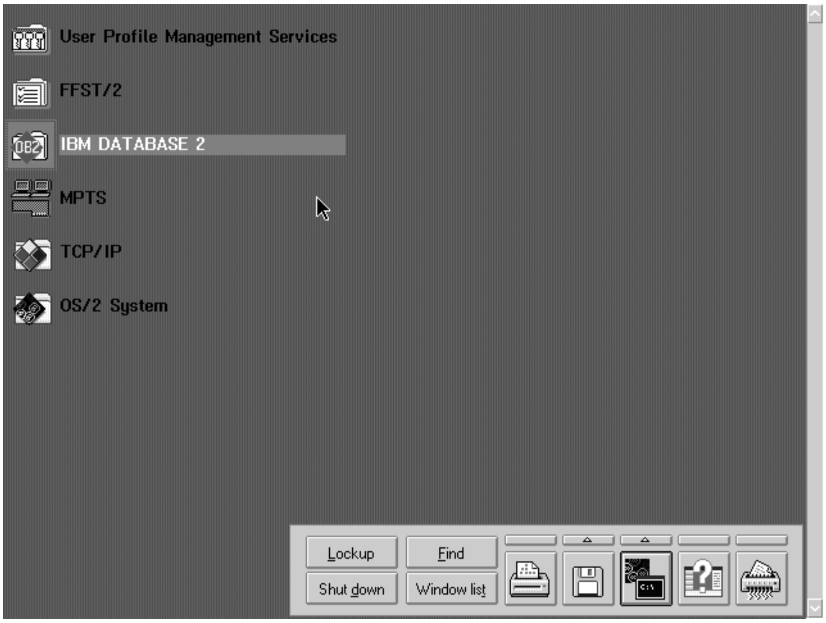


Figure 7-15 OS/2 Desktop after Successful Installation

☞ **Note**

The Database Manager uses access permission configurations in conjunction with the AMU AMS. Configure the User Profile Management Services as described in *Chapter 8, Software Configuration*.

Step 10 Select **Shutdown** from the OS/2 LaunchPad and boot the AMU controller PC.

LAN Adapter and Protocol Support Software Installation

LAN Adapter and Protocol Support (LAPS) software installs network support for selected network adapter cards and network protocols. LAPS was distributed with Communications Manager/2 and TCP/IP for OS/2. Install and configure LAPS prior to configuring CM/2 and TCP/IP.

LAPS is not installed for AMU controllers using the OS/2 Warp Connect operating system. This installation procedure is listed to remain compatible with OS/2 2.1 and OS/2 Warp.

OS/2 Warp Connect provides Multi-Protocol Transport Services (MPTS) support, which includes LAPS.

Perform the following steps only if OS/2 Warp Connect MPTS support is not already installed:

Step 1 If installing LAPS for TCP/IP support, insert the TCPLAPS diskette from the TCP/IP Version 2.0 for OS/2 base kit into drive A:.

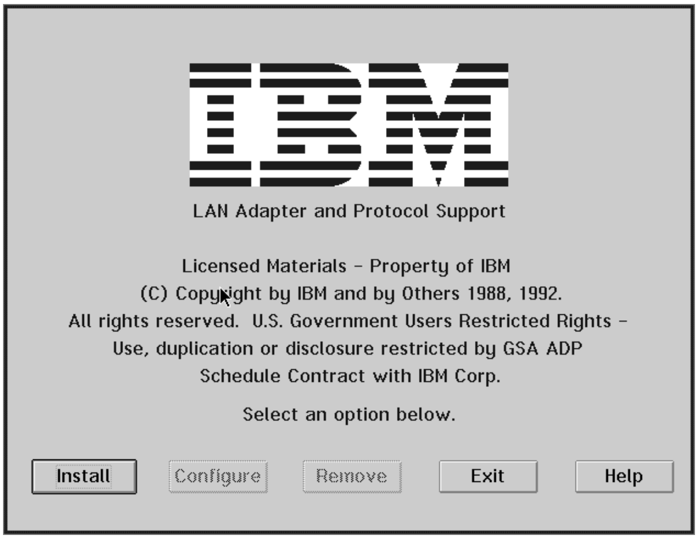
— or —

If installing LAPS for CM/2 support, insert the Network Transport Services/2 LAN Adapter and Protocol Support diskette into drive A:

Step 2 Select an OS/2 window, and type `A:LAPS` from the `C:` command prompt.

Step 3 From the LAN Adapter and Protocol Support logo window, select and press the **Install...** push-button.

The LAN Adapter and Protocol Support logo window appears. Refer to Figure 7-16 on page 7-17.



LAN Adapter and Protocol Support

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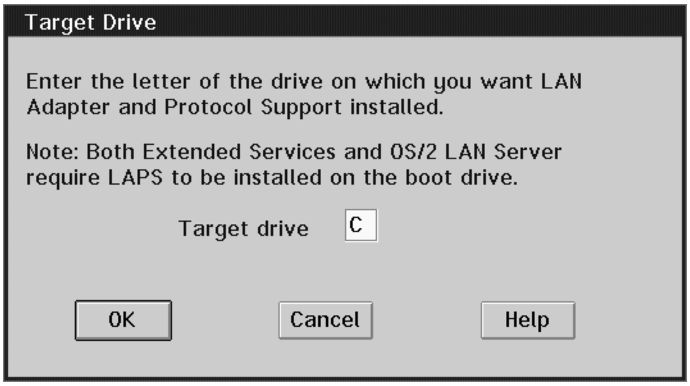
Use, duplication or disclosure restricted by GSA ADP
Schedule Contract with IBM Corp.

Select an option below.

Figure 7-16 LAN Adapter and Protocol Support logo

Step 4 Select and press the **Install** push-button to begin the installation process.

The Target Drive screen appears. See Figure 7-17.



Enter the letter of the drive on which you want LAN Adapter and Protocol Support installed.

Note: Both Extended Services and OS/2 LAN Server require LAPS to be installed on the boot drive.

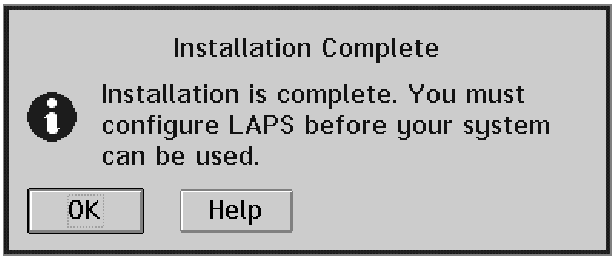
Target drive C

Figure 7-17 Target Drive

Step 5 Select and press the **OK** push-button to accept drive C: as the installation target drive.

Step 6 Wait until LAPS copied all necessary product files to the target drive.

The Installation Complete window appears. See Figure 7-18.



Installation Complete

Installation is complete. You must configure LAPS before your system can be used.

Figure 7-18 Installation Complete

Step 7 Select and press the **OK** push-button.

Step 8 Continue with chapter *Software configuration* to configure LAPS for the required network connection.

TCP/IP Software Installation

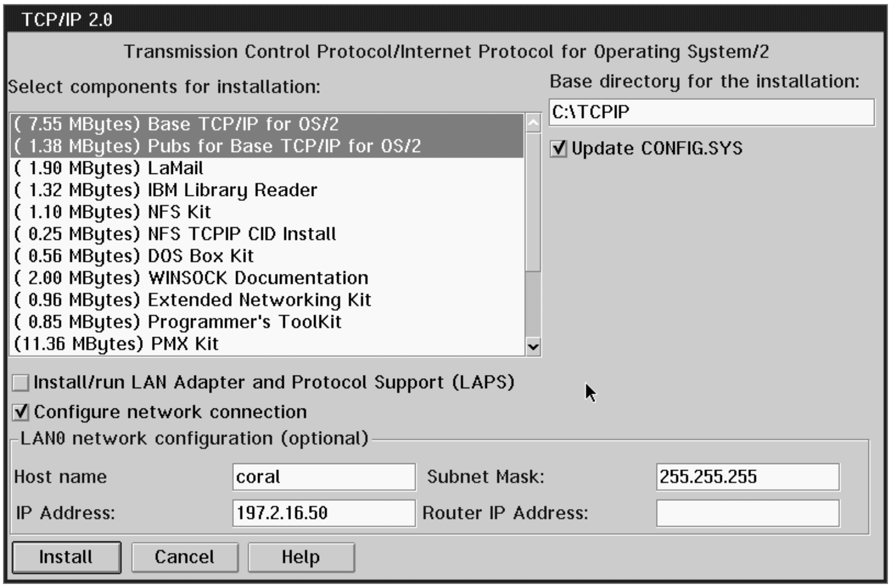
TCP/IP for OS/2 software installs all of the necessary TCP/IP services for network communications of TCP/IP connected hosts.

TCP/IP is not installed for AMU controllers using the OS/2 Warp Connect operating system. This installation procedure is listed to remain compatible with OS/2 2.1 and OS/2 Warp. If support was chosen during the OS/2 Warp Connect installation, TCP/IP support is already installed

Perform the following steps only if OS/2 Warp Connect is not installed:

Step 1 Select an OS/2 window and type `A:\TCPINST` at the `C:` prompt.

The TCP/IP 2.0 window appears. See Figure 7-19.



Transmission Control Protocol/Internet Protocol for Operating System/2

Select components for installation:

- (7.55 MBytes) Base TCP/IP for OS/2
- (1.38 MBytes) Pubs for Base TCP/IP for OS/2
- (1.90 MBytes) LaMail
- (1.32 MBytes) IBM Library Reader
- (1.10 MBytes) NFS Kit
- (0.25 MBytes) NFS TCPIP CID Install
- (0.56 MBytes) DOS Box Kit
- (2.00 MBytes) WINSOCK Documentation
- (0.96 MBytes) Extended Networking Kit
- (0.85 MBytes) Programmer's ToolKit
- (11.36 MBytes) PMX Kit

Base directory for the installation: C:\TCPIP

☑ Update CONFIG.SYS

☐ Install/run LAN Adapter and Protocol Support (LAPS)

☑ Configure network connection

LAN0 network configuration (optional)

Host name: coral

Subnet Mask: 255.255.255

IP Address: 197.2.16.50

Router IP Address:

Figure 7-19 TCP/IP 2.0

Step 2 Perform the following steps:

a. Select and highlight **Base TCP/IP for OS/2**, **Pubs for Base TCP/IP for OS/2** and the **IBM Library**

Readerin the Select components for installation field

b. Accept the installation path in the Base directory for the installation entry field

c. Check the **Update CONFIG.SYS** check box

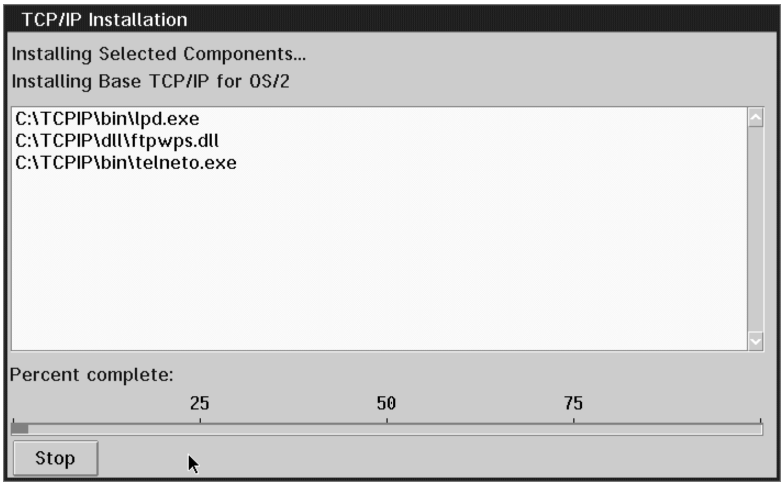
d. Uncheck the **Install/run LAN Adapter and Protocol Support (LAPS)** checkbox

e. If the AMU host name and TCP/IP address information are available, check the **Configure network connection** checkbox and enter the LAN0 network configuration parameters:

  - ♥ host name: ASCII name to identify the AMU-PC in the network (this parameter are not used in the AMU software)
  - ♥ , IP address in the 32-bit dotted decimal noted form (aaa.bbb.ccc.ddd) to identify the AMU in the Internet or Intranet
  - ♥ subnet mask in the 32-bit dotted decimal notation for specify how much ofthe local address portion of the IP-addree are reserved for the subnet work address (e.g.255.255.255.0)
  - ♥ router address: address in the network which should used to transfer the communication packages to the communicatio partner (optional).

f. Select and press the **Install** push-button to continue.

The TCP/IP Installation window appears. See Figure 7-20.



TCP/IP Installation

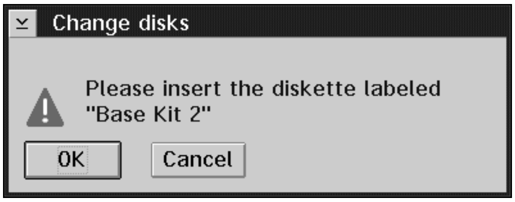
Installing Selected Components...
Installing Base TCP/IP for OS/2

```
C:\TCPIP\bin\lpd.exe
C:\TCPIP\dll\ftpwps.dll
C:\TCPIP\bin\telneto.exe
```

Figure 7-20 TCP/IP Installation

Caution **Do not interrupt the installation process until the installation completes.**

Step 3 Follow the instructions on the screen, see Figure 7-21, for removing and inserting diskettes to install all necessary product files.

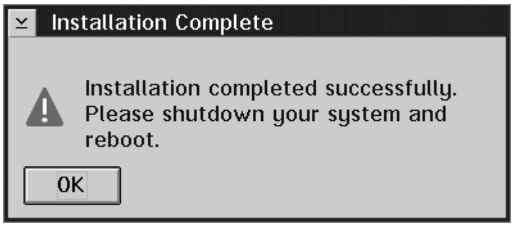


Change disks

Please insert the diskette labeled "Base Kit 2"

Figure 7-21 Change disks

When the installation process completes, the Installation Complete window appears. See Figure 7-22.



Installation Complete

Installation completed successfully. Please shutdown your system and reboot.

Figure 7-22 Installation Complete

Step 4 Select and press the **OK** push-button to acknowledge the successful installation message. TCP/IP services are now installed.

Step 5 Shut down and boot the AMU controller to have all changes of the *CONFIG.SYS* take effect. Then proceed with the TCP/IP configuration discussed in *Chapter 8, Software Configuration.*

Communications Manager/2 Software Installation

Communications Manager/2 (CM/2) provides a variety of communications interface configurations to the host computer. The AMU communications platform include Advanced Program to Program Communications (APPC) via Token-Ring, and 3270 emulation.

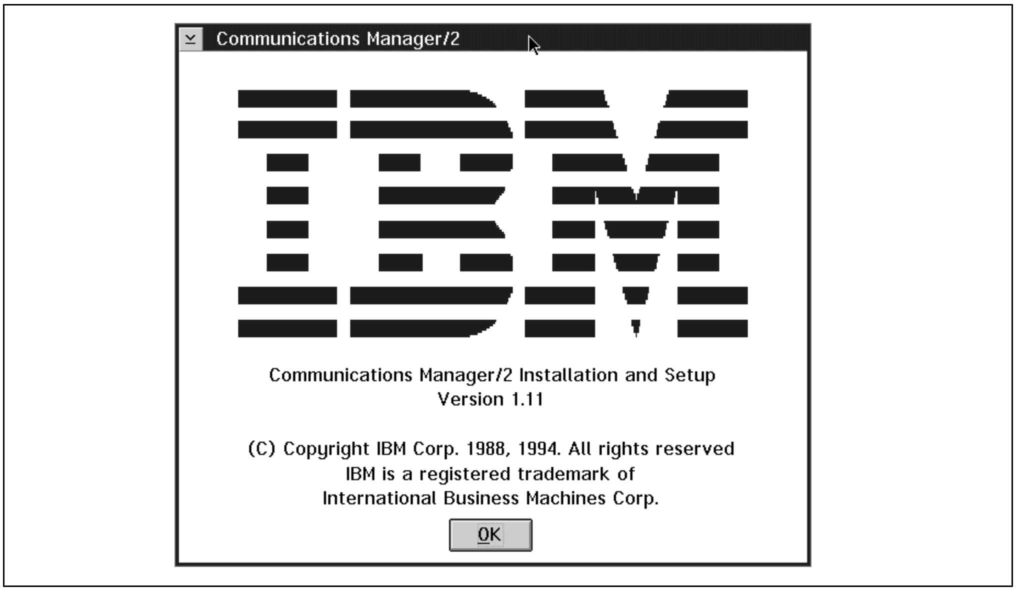
The following steps describe the CM/2 installation procedure. This installation is a generic installation which does not configure CM/2 for any particular host communication. The CM/2 configuration is detailed in *Chapter 8, Software Configuration.*

Step 1 Select an OS/2 window and change to the `C:` drive:

If installing from diskettes, type `A:\CMSETUP` and press **ENTER**.

If installing from CD-ROM, type `D:\CM2\CMSETUP` and press **ENTER**.

Step 2 When the Communications Manager Logo is displayed, see Figure 7-23, select and press the **OK** push-button.


Communications Manager/2

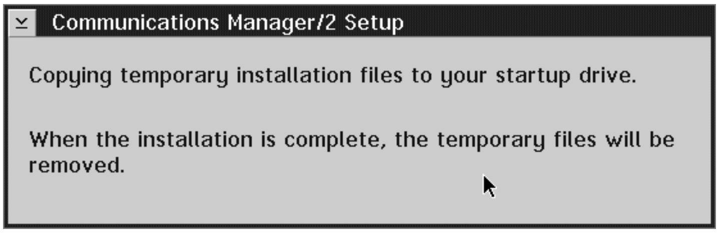
Communications Manager/2 Installation and Setup
Version 1.11

(C) Copyright IBM Corp. 1988, 1994. All rights reserved
IBM is a registered trademark of
International Business Machines Corp.

Figure 7-23 Communications Manager/2 Logo

The Communications Manager/2 installation copies temporary files to the hard disk.

The Communication Manager/2 Setup screen appears. See Figure 7-24.

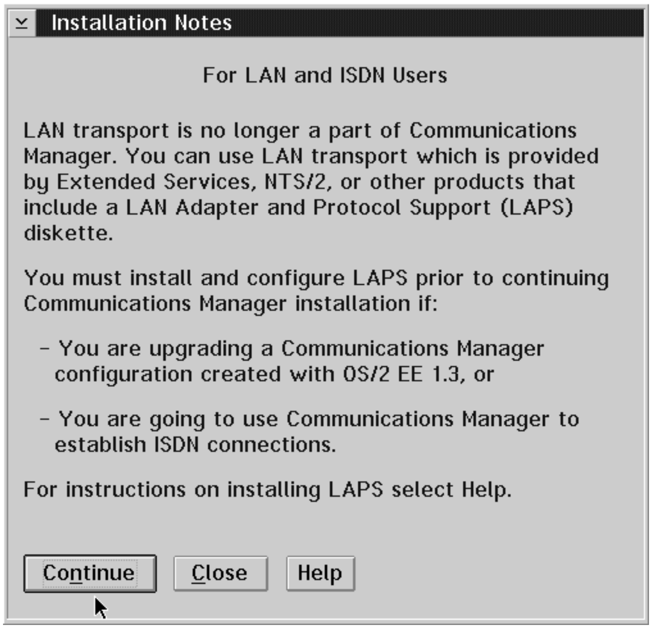


Copying temporary installation files to your startup drive.

When the installation is complete, the temporary files will be removed.

Figure 7-24 Communications Manager/2 Setup

After the temporary files are copied, an Installation Notes window, see Figure 7-25, displays.



For LAN and ISDN Users

LAN transport is no longer a part of Communications Manager. You can use LAN transport which is provided by Extended Services, NTS/2, or other products that include a LAN Adapter and Protocol Support (LAPS) diskette.

You must install and configure LAPS prior to continuing Communications Manager installation if:

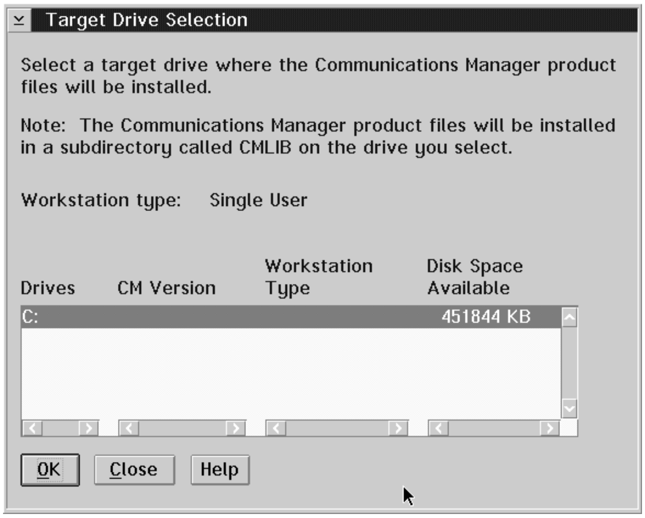
- You are upgrading a Communications Manager configuration created with OS/2 EE 1.3, or
- You are going to use Communications Manager to establish ISDN connections.

For instructions on installing LAPS select Help.

Figure 7-25 Installation Notes

This window is version dependent. If applicable, select and press the Continue... push-button.

The Target Drive Select window appears. See Figure 7-26.



Target Drive Selection

Select a target drive where the Communications Manager product files will be installed.

Note: The Communications Manager product files will be installed in a subdirectory called CMLIB on the drive you select.

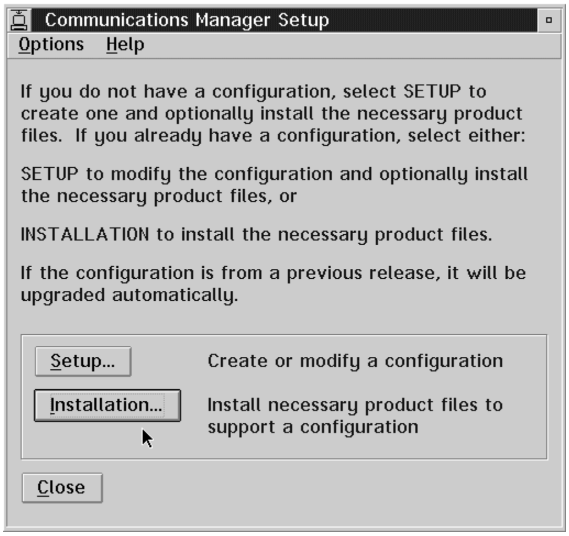
Workstation type: Single User

Drives	CM Version	Workstation Type	Disk Space Available
C:			451844 KB

Figure 7-26 Target Drive Selection

Step 3 Accept the CM/2 drive and path selection and press the **OK** push-button.

The Communication Manager Setup window displays. Refer to Figure 7-27 on page 7-26.



If you do not have a configuration, select SETUP to create one and optionally install the necessary product files. If you already have a configuration, select either:

SETUP to modify the configuration and optionally install the necessary product files, or

INSTALLATION to install the necessary product files.

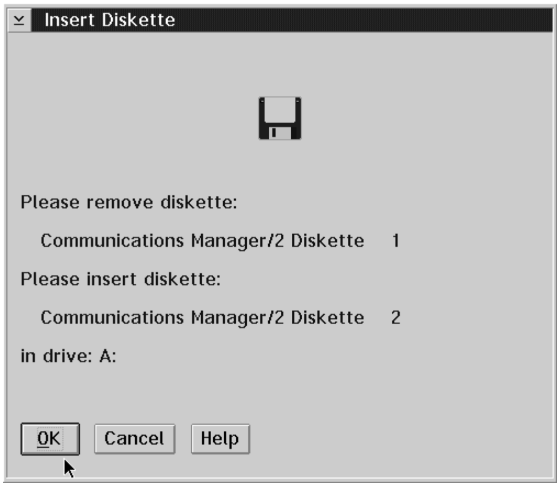
If the configuration is from a previous release, it will be upgraded automatically.

Setup...
Create or modify a configuration
Installation...
Install necessary product files to support a configuration
Close

Figure 7-27 Communications Manager Setup

Step 4 Select the **Setup...** push-button to install CM/2 product files.

The Insert Diskette window appears. See Figure 7-28.



Please remove diskette:

Communications Manager/2 Diskette 1

Please insert diskette:

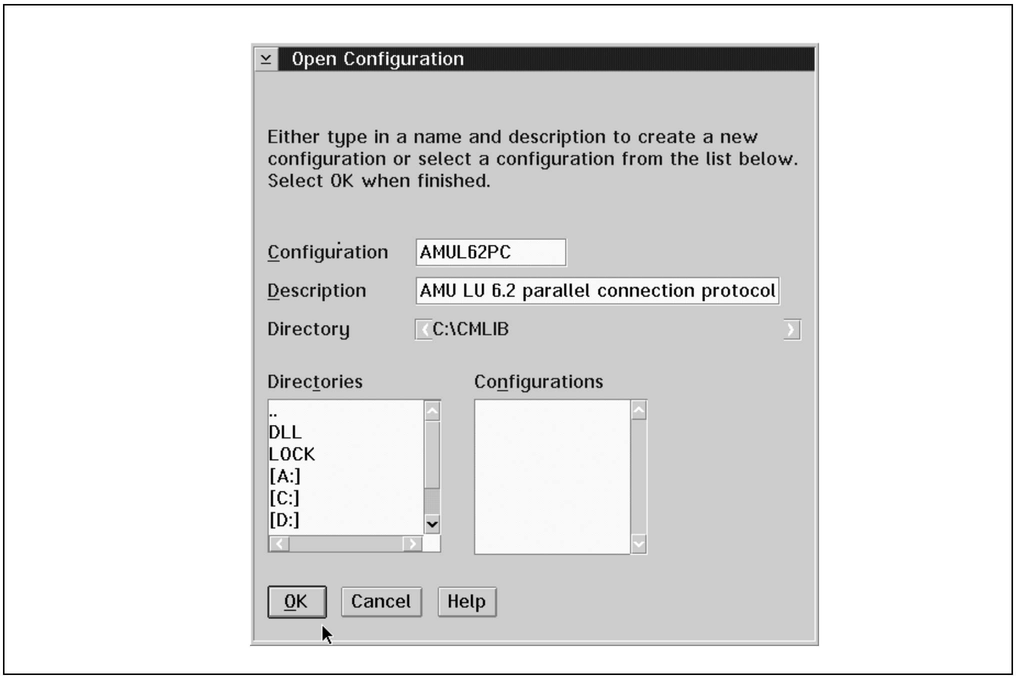
Communications Manager/2 Diskette 2

in drive: A:

Figure 7-28 Install Diskette

Step 5 If installing from diskettes, remove and insert the diskettes as prompted.

After all of the diskettes are copied, the Open Configuration window displays. See Figure 7-29.



Open Configuration

Either type in a name and description to create a new configuration or select a configuration from the list below. Select OK when finished.

Configuration: AMUL62PC

Description: AMU LU 6.2 parallel connection protocol

Directory: C:\CMLIB

Directories:
..
DLL
LOCK
[A:]
[C:]
[D:]

Configurations:

Figure 7-29 Open Configuration

Note

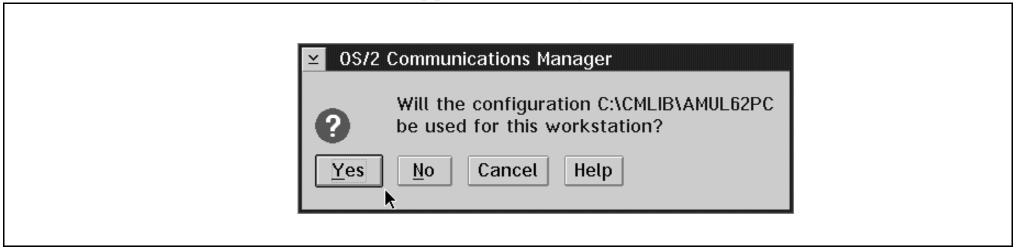
Choose a configuration name from the list of AMU supported configuration files. The files are listed in *CM/2 Configuration* on page 8-37.

Step 6 Put the diskette with the configuration files in the drive a and select in Directories: a:

Step 7 Select a configuration name in the **Configurations** entry field.

Step 8 Select and press the **OK** push-button.

The OS/2 Communication Manager child window appears. See Figure 7-30.



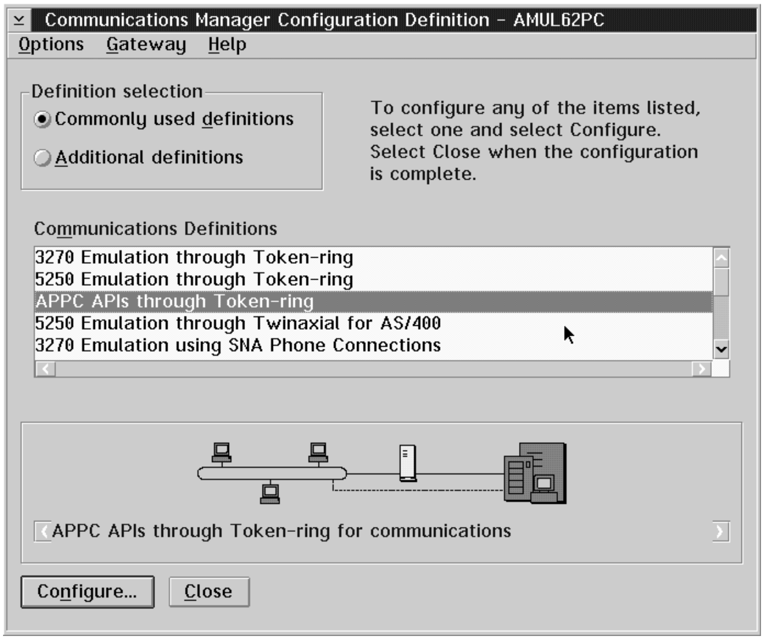
OS/2 Communications Manager

Will the configuration C:\CMLIB\AMUL62PC be used for this workstation?

Figure 7-30 OS/2 Communications Manager child

Step 9 When prompted to use the configuration file for this workstation, select and press the **Yes** push-button.

For Version 1.11, the Communication Manager Configuration Definition window appears. See Figure 7-31.



Definition selection

● Commonly used definitions

○ Additional definitions

To configure any of the items listed, select one and select Configure. Select Close when the configuration is complete.

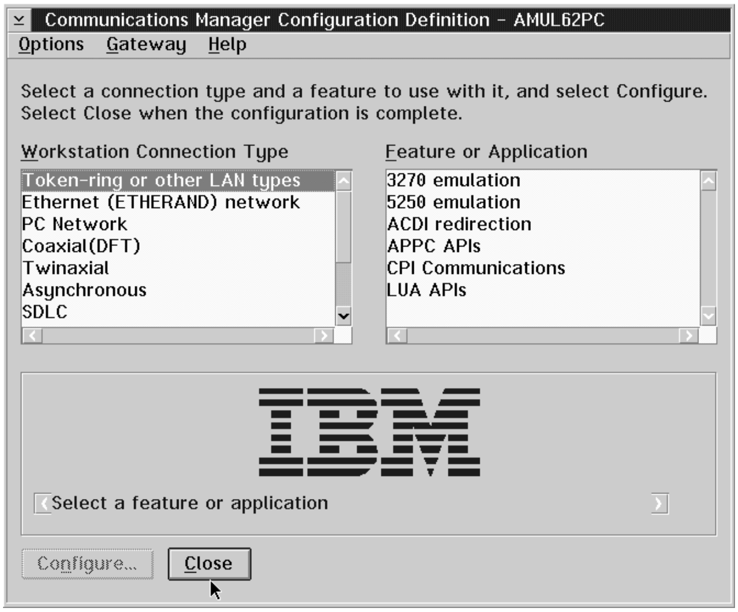
Communications Definitions

3270 Emulation through Token-ring
5250 Emulation through Token-ring
APPC APIs through Token-ring
5250 Emulation through Twinaxial for AS/400
3270 Emulation using SNA Phone Connections

APPC APIs through Token-ring for communications

Figure 7-31 Communication Manager Configuration Definition

For earlier versions, the Communication Manager Configuration Definition window appears. See Figure 7-32.



Communications Manager Configuration Definition - AMUL62PC

Select a connection type and a feature to use with it, and select Configure. Select Close when the configuration is complete.

Figure 7-32 CM/2 1.0 Configuration Definition

Step 10 For Version 1.11:

a. Check the **Additional definitions** button.

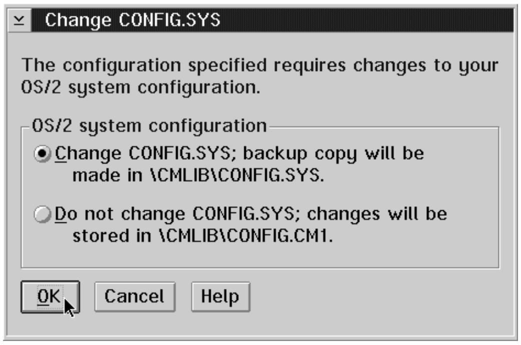
Step 11 Select **Token-ring or other LAN types** in the Workstation Connection Type selection list, and **APPC APIs** in the Feature or Application selection list.

☞ Note

This installation procedure does not configure CM/2 for any specific host connection. The host connection will be configured in *CM/2 Configuration* on page 8-37

Step 12 Select and press the **Close** push-button to complete the installation.

After the configuration is verified, the Change CONFIG.SYS screens appears. See Figure 7-33.



Change CONFIG.SYS

The configuration specified requires changes to your OS/2 system configuration.

OS/2 system configuration

● Change CONFIG.SYS; backup copy will be made in \CMLIB\CONFIG.SYS.

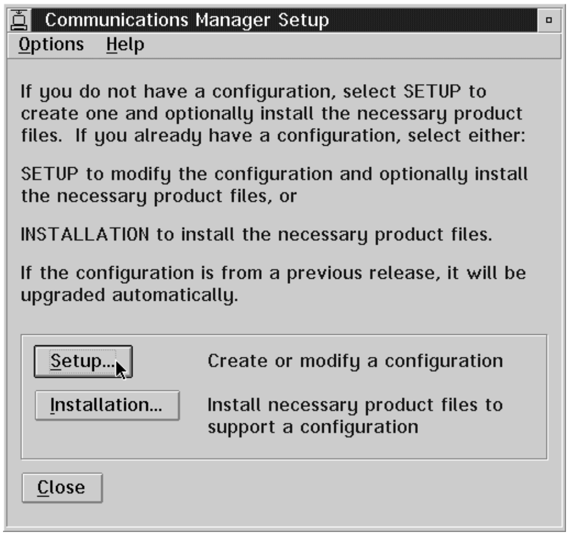
○ Do not change CONFIG.SYS; changes will be stored in \CMLIB\CONFIG.CM1.

Figure 7-33 Change CONFIG.SYS

Step 13 Select the **Change CONFIG.SYS; backup copy will be made in \CMLIB\CONFIG.SYS** button in the OS/2 system configuration field.

Step 14 Select and press the **OK** push-button to continue.

The Communication Manager Setup screens appears. Refer to Figure 7-34 on page 7-31.



If you do not have a configuration, select SETUP to create one and optionally install the necessary product files. If you already have a configuration, select either:

SETUP to modify the configuration and optionally install the necessary product files, or

INSTALLATION to install the necessary product files.

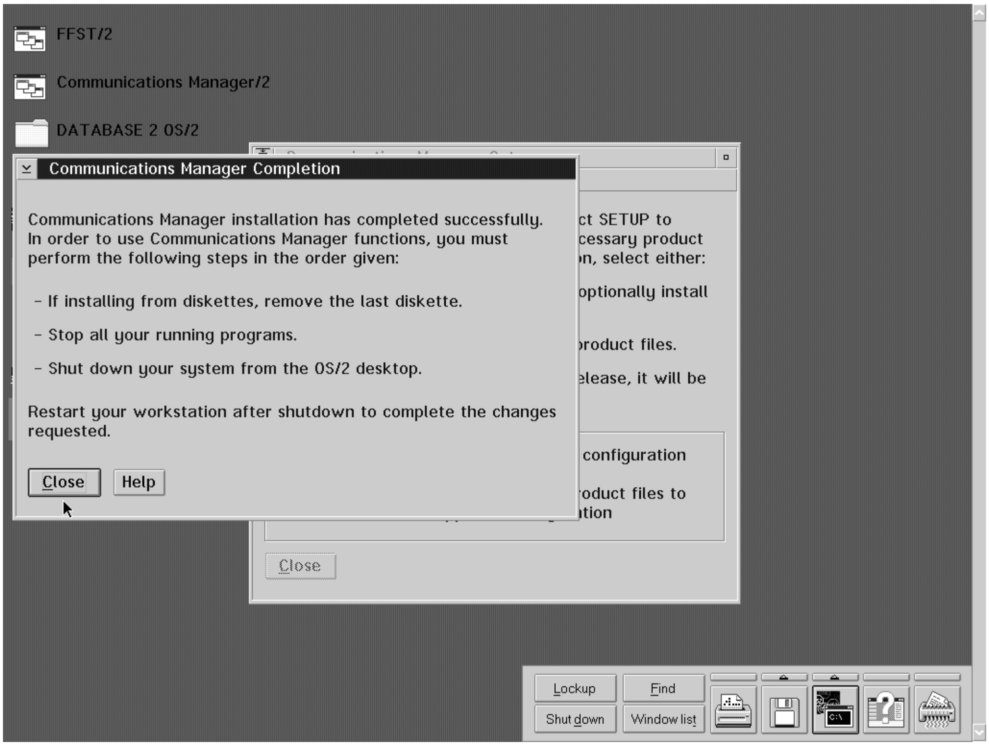
If the configuration is from a previous release, it will be upgraded automatically.

Setup...	Create or modify a configuration
Installation...	Install necessary product files to support a configuration

Figure 7-34 Communication Manager Setup

Step 15 After the updates complete, select the **Close** push-button from the Communications Manager Setup window.

The Communication Manager Completion screen appears. Refer to Figure 7-35 on page 7-32.



Communications Manager installation has completed successfully. In order to use Communications Manager functions, you must perform the following steps in the order given:

- If installing from diskettes, remove the last diskette.
- Stop all your running programs.
- Shut down your system from the OS/2 desktop.

Restart your workstation after shutdown to complete the changes requested.

Figure 7-35 Communication Manager Completion in OS/2 Desktop

Step 16 Select and press the **Close** push-button to initiate the Communication Manager requested controller shut down procedure.

KopyKat Software Installation

KopyKat for OS/2 is a remote control software package which is used in place of the Distributed Console Access Facility (DCAF) software package. KopyKat remotely monitors or controls the AMU controller PC.

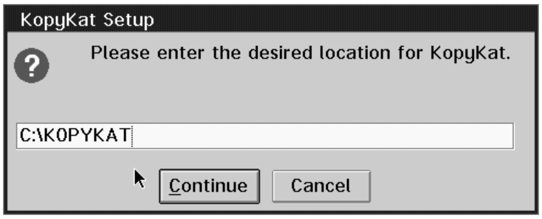
KopyKat consists of two components, Kopy and Kat. Kat is installed on the AMU controller and Kopy is installed on a remote workstation.

The following steps install the Kat module on the AMU controller.

Step 1 Insert the KopyKat diskette into drive A: and select an OS/2 window.

Change to the `C:` directory and type `A:\SETUP` followed by **ENTER**.

The KopyKat Setup screen is displayed. See Figure 7-36.



KopyKat Setup

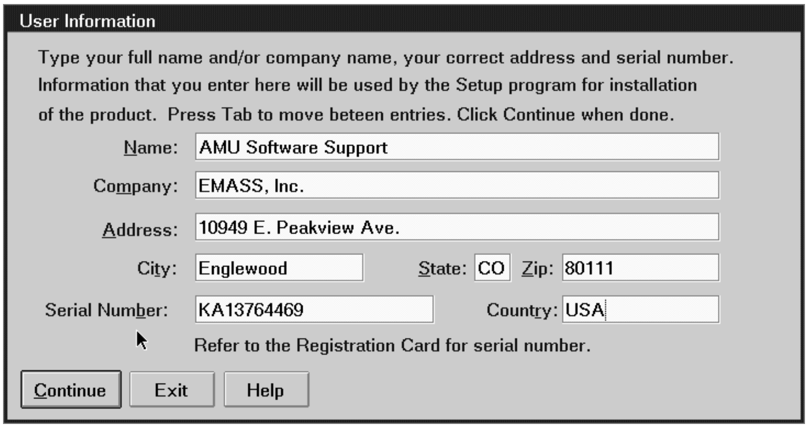
Please enter the desired location for KopyKat.

C:\KOPYKAT

Figure 7-36 KopyKat Setup

Step 2 Accept the installation target path. Select and press the **Continue** push-button.

The User Information screens appears. Refer to Figure 7-37 on page 7-34.



Type your full name and/or company name, your correct address and serial number. Information that you enter here will be used by the Setup program for installation of the product. Press Tab to move beteen entries. Click Continue when done.

Name: AMU Software Support
Company: EMASS, Inc.
Address: 10949 E. Peakview Ave.
City: Englewood State: CO Zip: 80111
Serial Number: KA13764469 Country: USA

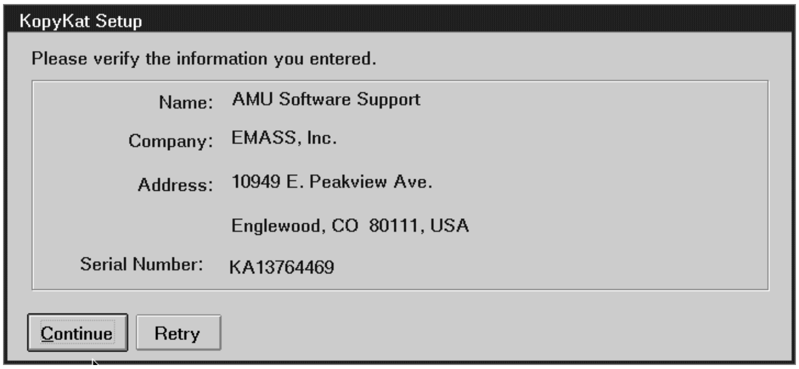
Refer to the Registration Card for serial number.

Figure 7-37 User Information

Step 3 Enter your address information and KopyKat serial number. The serial number is printed on the KopyKat diskette label.

Step 4 Select and press the **Continue** push-button.

The KopyKat Setup screen is displayed. See Figure 7-38.



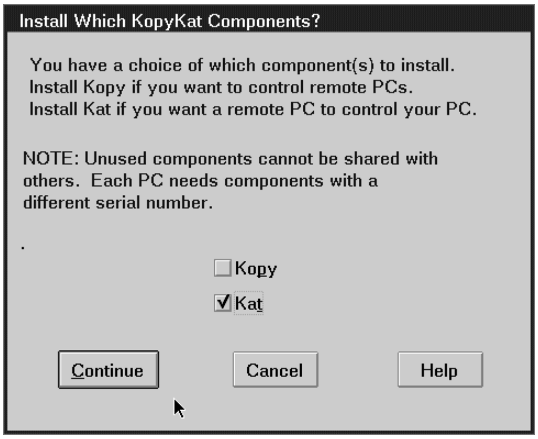
Please verify the information you entered.

Name: AMU Software Support
Company: EMASS, Inc.
Address: 10949 E. Peakview Ave.
Englewood, CO 80111, USA
Serial Number: KA13764469

Figure 7-38 KopyKat Setup

Step 5 Verify your entered user information. If correct, select and press the **Continue** push-button.

The Install Which KoypKat Components screen displays. Refer to Figure 7-39 on page 7-35.



Install Which KopyKat Components?

You have a choice of which component(s) to install.
Install Kopy if you want to control remote PCs.
Install Kat if you want a remote PC to control your PC.

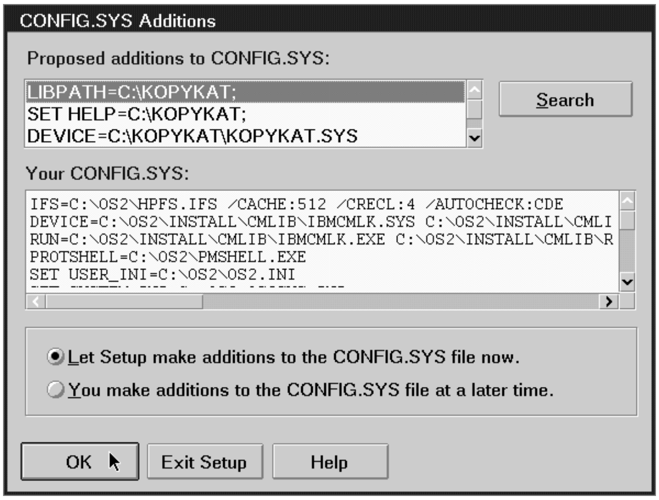
NOTE: Unused components cannot be shared with others. Each PC needs components with a different serial number.

☐ Kopy
☑ Kat

Figure 7-39 Install Which KopyKat Components?

Step 6 Check the **Kat** checkbox. Select and press the **Continue** push-button.

The CONFIG.SYS Additions screen displays. See Figure 7-40.



CONFIG.SYS Additions

Proposed additions to CONFIG.SYS:

```
LIBPATH=C:\KOPYKAT;
SET HELP=C:\KOPYKAT;
DEVICE=C:\KOPYKAT\KOPYKAT.SYS
```

Your CONFIG.SYS:

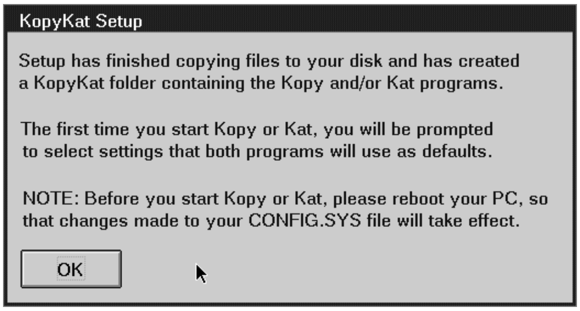
```
IFS=C:\OS2\HPFS.IFS /CACHE:512 /CRECL:4 /AUTOCHECK:CDE
DEVICE=C:\OS2\INSTALL\CMLIB\IBMCMLK.SYS C:\OS2\INSTALL\CMLI
RUN=C:\OS2\INSTALL\CMLIB\IBMCMLK.EXE C:\OS2\INSTALL\CMLIB\R
PROTSHELL=C:\OS2\PMSHELL.EXE
SET USER_INI=C:\OS2\OS2.INI
```

● Let Setup make additions to the CONFIG.SYS file now.
○ You make additions to the CONFIG.SYS file at a later time.

Figure 7-40 CONFIG.SYS Additions

Step 7 Check the **Let Setup make additions to the CONFIG.SYS file now**. Select and press the **OK** push-button.

The KopyKat Setup window appears. See Figure 7-41.



Setup has finished copying files to your disk and has created
a KopyKat folder containing the Kopy and/or Kat programs.

The first time you start Kopy or Kat, you will be prompted
to select settings that both programs will use as defaults.

NOTE: Before you start Kopy or Kat, please reboot your PC, so
that changes made to your CONFIG.SYS file will take effect.

Figure 7-41 KopyKat Setup

Step 8 The KopyKat Setup window indicates completion of the KopyKat installation. Select and press the **OK** push-button to continue.

Step 9 Select and press the **No** push-button to skip the display of the Readme file.

Step 10 Shut down and boot the AMU controller to activate the KopyKat CONFIG.SYS changes. Proceed to *KopyKat Configuration* on page 8-99 to configure and invoke KopyKat.

DCAF Software Installation

The **DCAF** software package provides remote access to control and monitor the AMU controller PC.

The following steps detail the DCAF target installation procedure. DCAF allows remote workstation access to the AMU controller via a modem connection.

Step 1 Insert the Distributed Console Access Facility Diskette 1 of 9 into drive A:. Select an OS/2 window and type `A:\INSTALL` from the `C:` prompt.

Step 2 Press the **OK** push-button when the DCAF Logo window is displayed.

Step 3 Select and highlight **Target for OS/2** in the List of Components selection list.

The Distributed Console Access Facility Installation screen appears. See Figure 7-42.

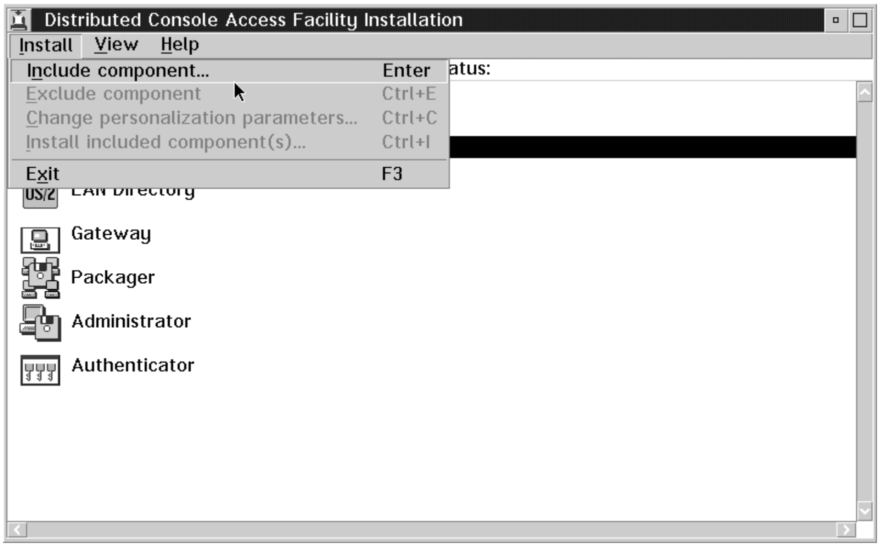

Distributed Console Access Facility Installation
Install
View
Help
Include component... Enter
Exclude component Ctrl+E
Change personalization parameters... Ctrl+C
Install included component(s)... Ctrl+I
Exit F3
atus:
LAN Directory
Gateway
Packager
Administrator
Authenticator

Figure 7-42 Distributed Console Access Facility Installation

Step 4 From the Install menu, select the **Include component...** option and press **ENTER**.

The Installation Mode screen displays. Refer to Figure 7-43 on page 7-38.

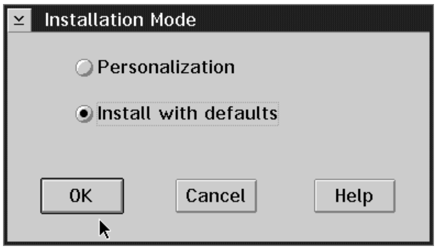


Figure 7-43 Installation Mode

Step 5 Select the **Install with defaults** button. Select and press the **OK** push-button.

The Distributed Console Access Facility Installation screen displays. See Figure 7-44.

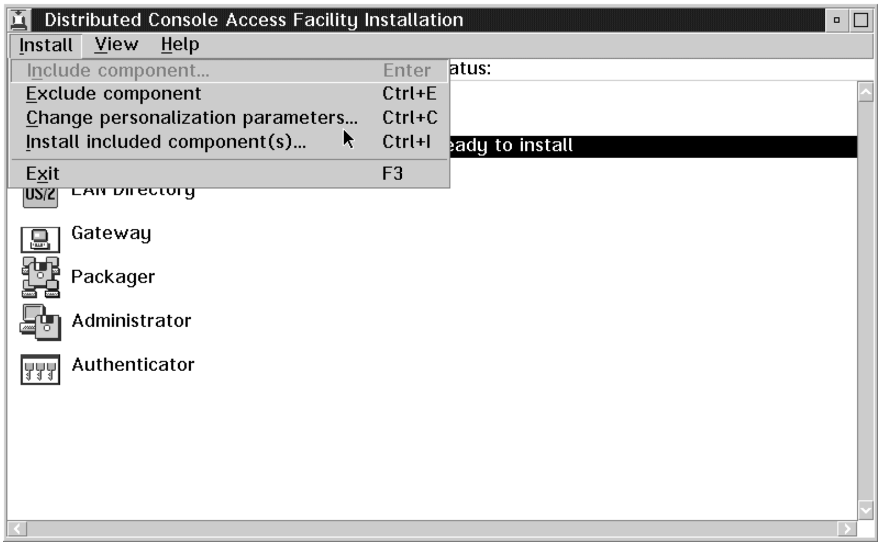
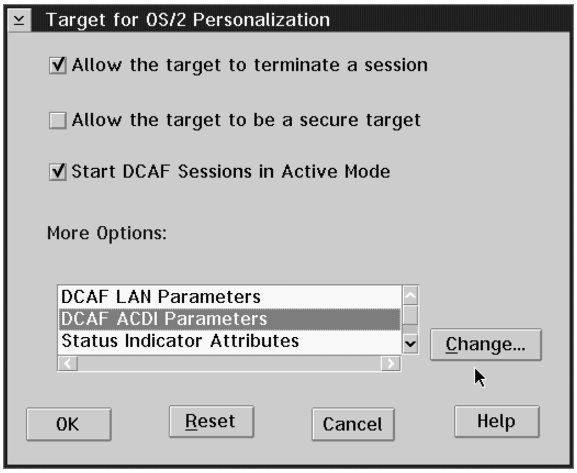

Distributed Console Access Facility Installation
Install
View
Help
Include component... Enter
Exclude component Ctrl+E
Change personalization parameters... Ctrl+C
Install included component(s)... Ctrl+I
Exit F3
atus:
eady to install
LAN Directory
Gateway
Packager
Administrator
Authenticator

Figure 7-44 Distributed Console Access Facility Installation

Step 6 Select the **Change personalization parameters...** option. Press **ENTER**.

The Target for OS/2 Personalization screen displays. Refer to Figure 7-45 on page 7-39.


Target for OS/2 Personalization

☑ Allow the target to terminate a session

☐ Allow the target to be a secure target

☑ Start DCAF Sessions in Active Mode

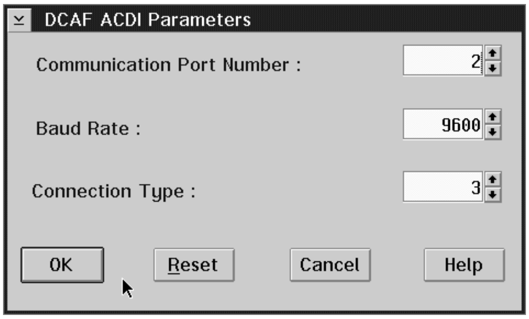
More Options:

DCAF LAN Parameters
DCAF ACDI Parameters
Status Indicator Attributes

Figure 7-45 Target for OS/2 Personalization

Step 7 Select the check box parameters according to your security requirements, select **DCAF ACDI Parameters** in the **More Options** selection list. Select and press the **Change** push-button to view current ACDI parameter settings.

The DCAF ACDI Parameters screen appears. See Figure 7-46.


DCAF ACDI Parameters

Communication Port Number : 2

Baud Rate : 9600

Connection Type : 3

Figure 7-46 DCAF ACDI Parameters

Step 8 Accept or change the ACDI modem parameters to reflect your modem type and data transfer rate. Select and press **OK**.

The Distributed Console Access Facility Installation screen displays. See Figure 7-47.

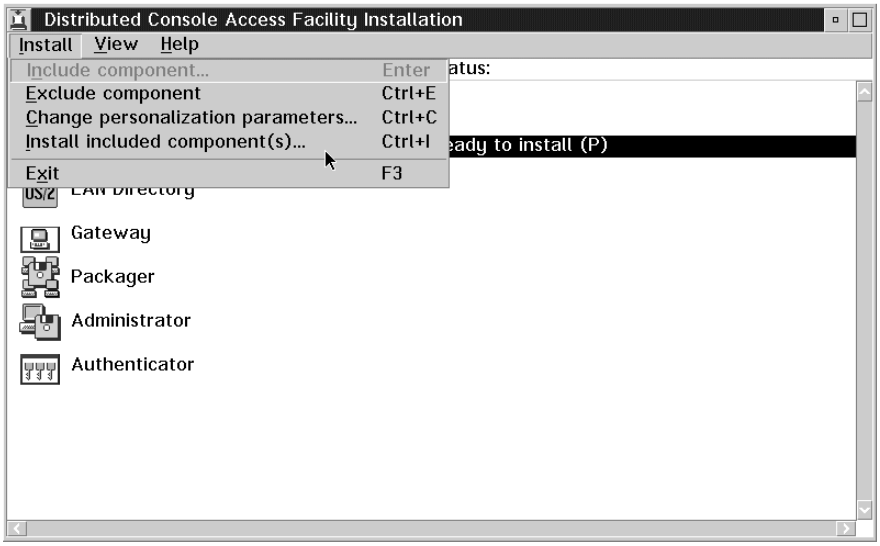
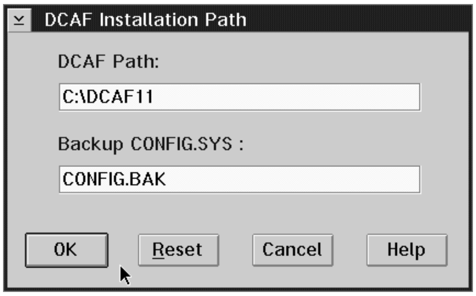

Distributed Console Access Facility Installation
Install
View
Help
Include component... Enter
Exclude component Ctrl+E
Change personalization parameters... Ctrl+C
Install included component(s)... Ctrl+I
Exit F3
atus:
eady to install (P)
LAN Directory
Gateway
Packager
Administrator
Authenticator

Figure 7-47 Distributed Console Access Facility Installation

Step 9 Select the **Install included component(s)...** option. Press **ENTER**.

The DCAF Installation Path screen appears. See Figure 7-48.



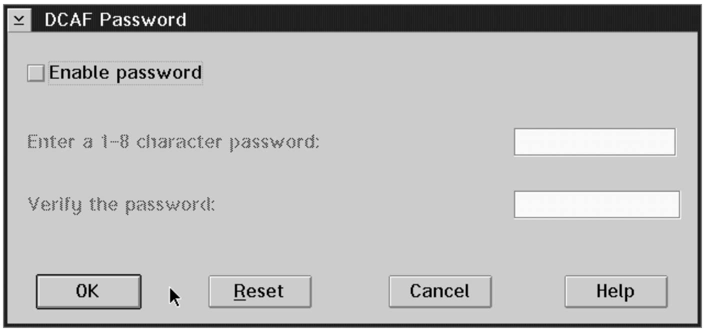
DCAF Path:
C:\DCAF11

Backup CONFIG.SYS :
CONFIG.BAK

Figure 7-48 DCAF Installation Path

Step 10 Accept the DCAF installation path. Select and press the **OK** push-button to continue.

The DCAF Password screen displays. See Figure 7-49.

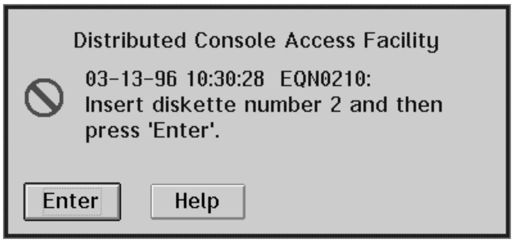


☐ Enable password

Figure 7-49 DCAF Password

Step 11 Determine whether a login password is required for remote workstation access. If a password is required, follow the subsequent screen instructions. If no password is required, select and press the **OK** push-button.

The Distributed Console Access Facility Insert Diskette screen appears. See Figure 7-50.

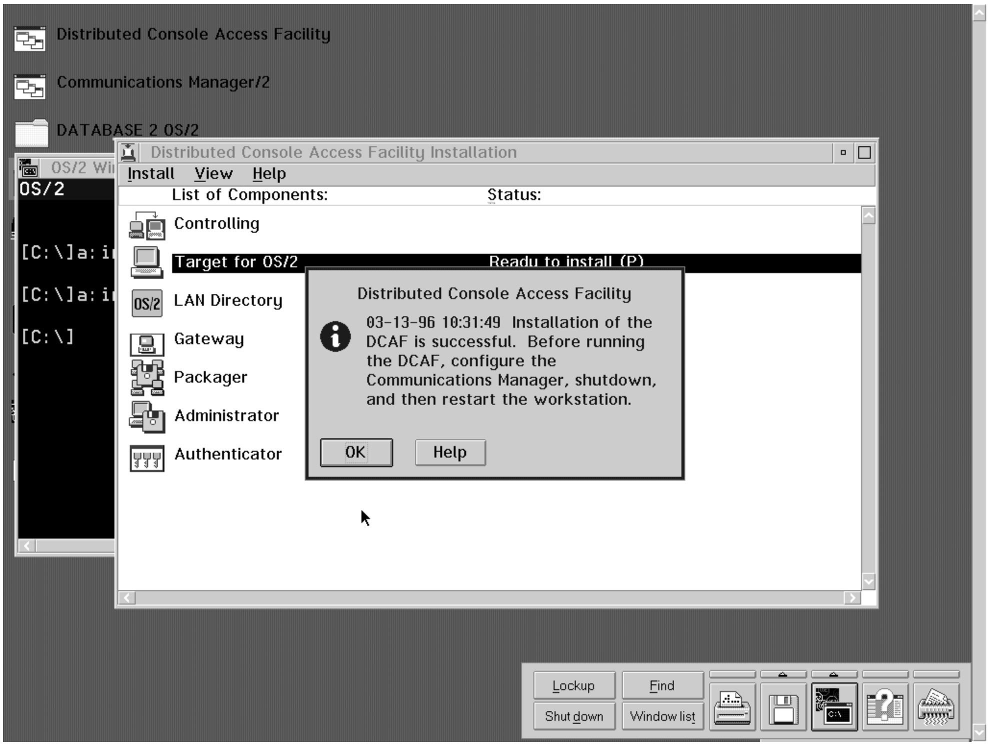


03-13-96 10:30:28 EQN0210:
Insert diskette number 2 and then press 'Enter'.

Figure 7-50 Distributed Console Access Facility

Step 12 Follow the instructions on the screen to remove and insert diskettes to install all DCAF target files.

The Distributed Console Access Facility Installation screen displays. Refer to Figure 7-51 on page 7-42.



Distributed Console Access Facility

03-13-96 10:31:49 Installation of the DCAF is successful. Before running the DCAF, configure the Communications Manager, shutdown, and then restart the workstation.

Figure 7-51 Distributed Console Access Facility Installation in OS/2 Desktop

Step 13 Once the installation completes, select and press the **OK** push-button to close the DCAF installation windows.

Step 14 To start a DCAF target session, shut down and boot the AMU controller. Proceed with *Chapter 8, Software Configuration*, to setup communication with the DCAF target.

AML Management Software Installation

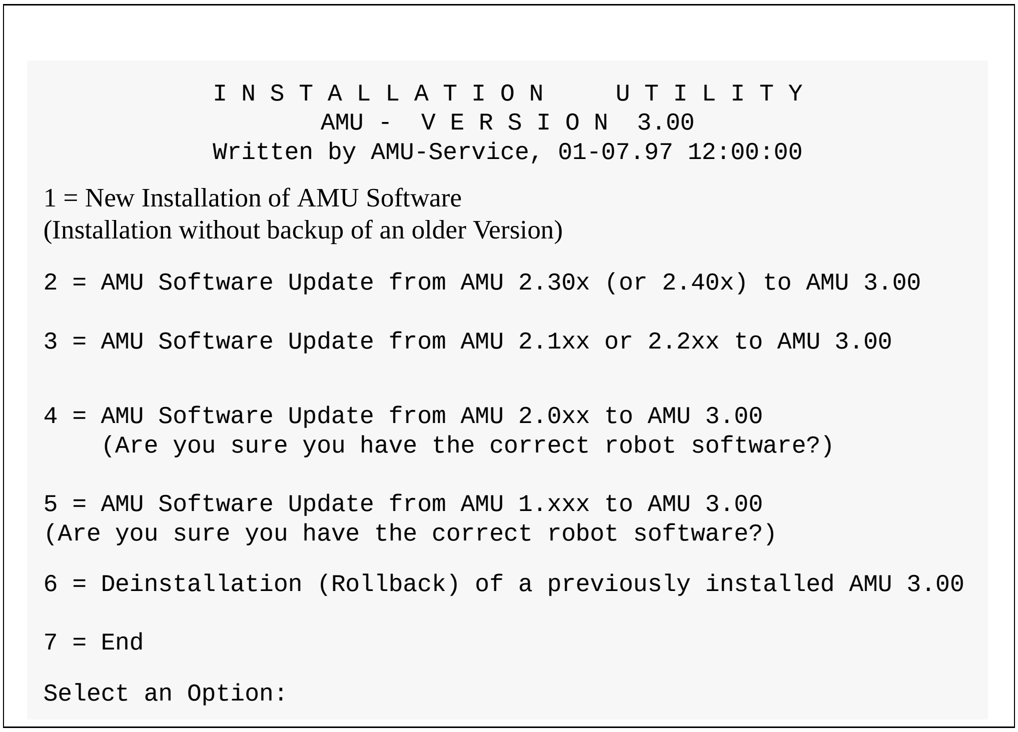
The ADIC AMU AML Management Software (AMS) and robot software is distributed on 3.5 inch diskettes. The AMU AMS and AML/J robot software installs automatically. The AML/E and AML/2 robot software does not install automatically. The AML/E and AML/2 software is distributed as a zipped file or self-extracting archive and is manually unzipped or self-extracted into a robot directory. The robot directory is downloaded by the AMU AMS.

To install the AML Management Software proceed as follows.

Step 1 Insert the AML Management Software disk 1 of 3 into drive A:.

Step 2 Select an OS/2 window, and maximize the window with the **MIN-MAX** button. Change to the `A:` drive and type `INSTALL` followed by **ENTER**. Ensure that the `C:\` prompt is displayed with no subdirectory in the path statement.

The Installation Utility screen appears. See Figure 7-52.



```
             I N S T A L L A T I O N    U T I L I T Y
                    AMU -  V E R S I O N  3.00
             Written by AMU-Service, 01-07.97 12:00:00

1 = New Installation of AMU Software
(Installation without backup of an older Version)

2 = AMU Software Update from AMU 2.30x (or 2.40x) to AMU 3.00

3 = AMU Software Update from AMU 2.1xx or 2.2xx to AMU 3.00


4 = AMU Software Update from AMU 2.0xx to AMU 3.00
    (Are you sure you have the correct robot software?)

5 = AMU Software Update from AMU 1.xxx to AMU 3.00
(Are you sure you have the correct robot software?)

6 = Deinstallation (Rollback) of a previously installed AMU 3.00

7 = End

Select an Option:
```

Figure 7-52 Installation Utility

Step 3 Follow the instructions on the screen. Remove and insert diskettes as prompted.

Once all files have been copied, the CONFIG.SYS and STARTUP.CMD files are updated. Shut-down and boot the controller to place the AMU changes into effect.

Dual AMU (Backup AMU) Installation

The dual AMU controller is primarily a feature for AML/2 and AML/E installations that are connected to an MVS host. MVS HCC software is capable of sending commands to the primary AMU controller to switch control between the main and the dual AMU controller. Although the dual AMU controller may be installed for other host and software configurations, fully automatic controller switching is only available with MVS HCC. Other installations require manual switching of the Automatic Data Switch (ADS).

The AML/J provides limited support of the dual AMU controller concept because the AMU controller connection to the PMAC robot controller is not switchable with an ADS switch. For the AML/J, cables are disconnected and reconnected.

The dual AMU controller requires the same hardware and software installation and configuration as the main (primary) AMU controller. The backup controller shares the keyboard, mouse, and monitor with the primary AMU via a T-switch.

Figure 7-53 shows the physical AMU-ADS-AMU connection.

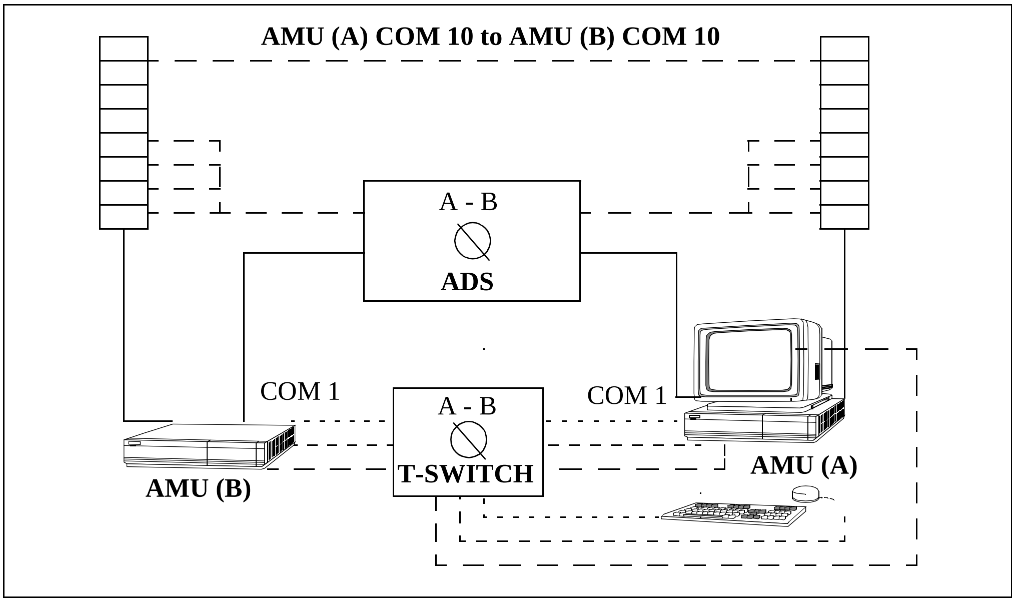


Figure 7-53 dual AMU installation

The main AMU(A) and dual AMU(B) may use various communication schemes to connect and communicate information with each other. Current communication schemes are:

- RS 232 (AML/2 protocol)
- RS 232 (SIEMENS 3964R protocol via SOTEC multiport adapter to configure master and slave)
- APPC (LU 6.2 protocol)
- TCP/IP

Use the following steps to setup and install the dual AMU controller PC:

Step 1 Place the AMU controllers, T-switch, ADS, monitor, keyboard, and mouse next to each other, and connect devices as shown in the Figure 7-53. Continue by:

- Connecting the mouse, keyboard, and monitor to the T-switch
- Connecting the main AMU monitor, keyboard, and mouse connection to the T-switch
- Connecting the dual AMU monitor, keyboard, and mouse connection to the T-switch
- Connecting the port COM1 of the main AMU controller to the ADS
- Connecting the port COM1 of the dual AMU controller to the ADS
- Connecting the two AMU controllers via RS 232, APPC, or TCP/IP.

Step 2 Make sure the COM port connections are connected as shown in Figure 7-54 on page 7-46.

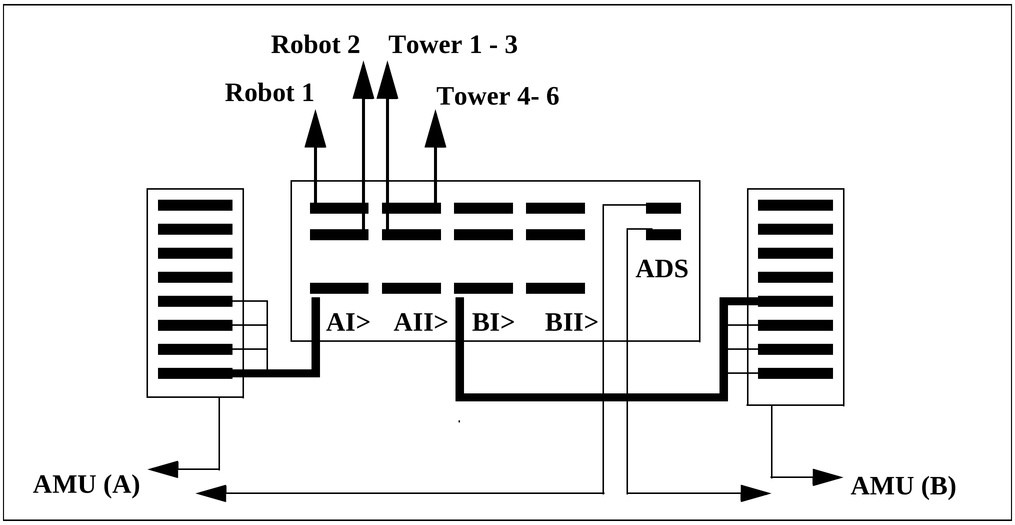


Figure 7-54 COM port connections between ARTIC cards and ADS Example

Step 3 When the AMU controller connections are established and all of the software is loaded and configured, continue with *AMS Configuration* on page 8-107 to configure the main AMU controller and the dual AMU controller.

8

Software Configuration

Overview

The following software configuration sections assume that all of the necessary adapter card and software installations were performed successfully. The configuration descriptions in this chapter discuss generic configurations for installations from 3.5 inch diskette or CD-ROM. Differences are noted whenever 3.5 inch diskette or CD-ROM specific variations occur.

Database 2 Access Rights Configuration

Database 2 version 1.xx and version 2.xx require the definition of userids and access rights to allow the AMU archive management software to logon to the data base as a user and administrator. The AMS kernel process logs on with the user id *AMUUSE*R and a password of *AMUUSER* (in AMS vesion 1.xx and 2.xx). In the AMU version 3.xx the kernel logon with the userid AMUADMIN. Only in the version 1.xx and 2.xx will be used the AMUADMIN for the login in the AMS console. In version 3.xx are the AMUUSER not longer necessary

Database 2 version 1.xx required a user type of *User* for the AMUUSER logon definition and a type of *Administrator* for the AMUADMIN definition. Database 2 version 2.xx requires both user definitions to be of type *Administrator*.

The data base access rights configuration

- adds the AMUUSER/AMUUSER logon definition,
- adds the AMUADMIN/xxxxxxxxxxx definition,
- deletes the default USERID/PASSWORD logon definition.

Follow the steps below to add the required user logon definitions:

Step 1 Select and double-click the **User Profile Management Services** icon (**UPM Services** icon) on the Desktop.

The User Profile Management Services Icon View appears. Refer to Figure 8-1 on page 8-4

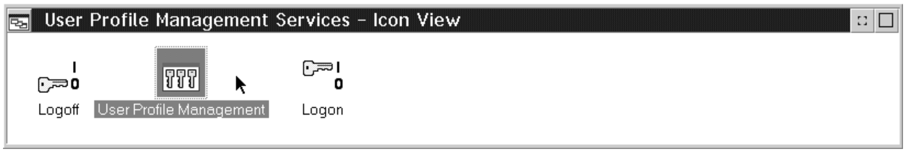
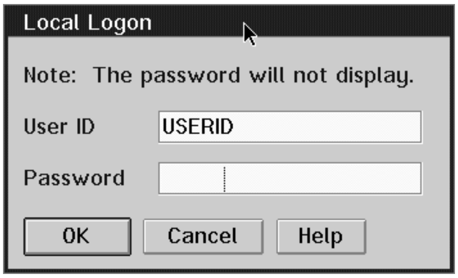


Figure 8-1 User Profile Management Services Icon View

Step 2 Select and double-click the **User Profile Management** icon (**Account Management** icon).

The Local Logon screen appears. See Figure 8-2.


Local Logon

Note: The password will not display.

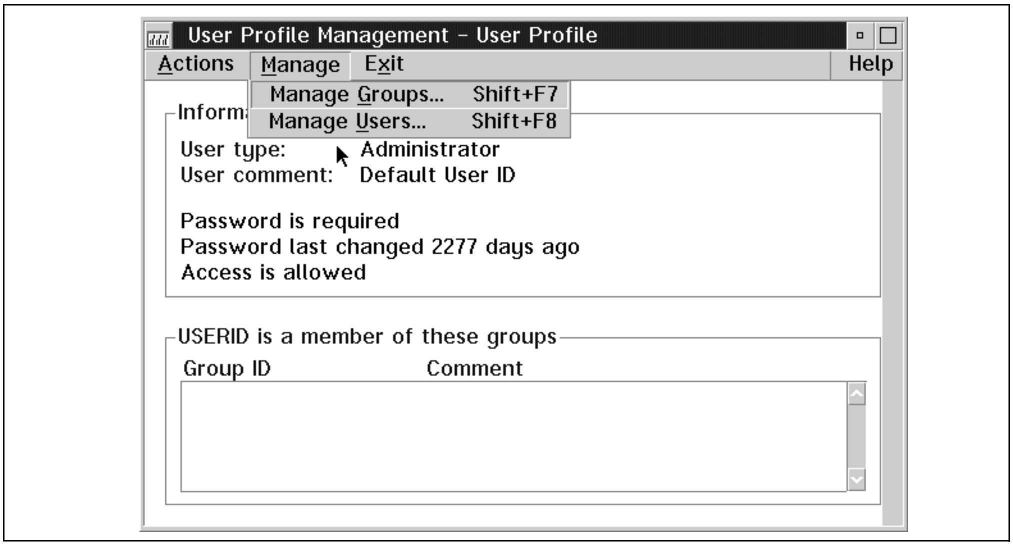
User ID USERID

Password

Figure 8-2 Local Logon

Step 3 Enter **USERID** in the **User ID** entry field. Enter **PASSWORD** in the **Password** entry field. Select and press the **OK** push-button to logon.

Refer to Figure 8-3 on page 8-5 for the User Profile Management screens.


User Profile Management - User Profile
Actions
Manage
Exit
Help
Manage Groups... Shift+F7
Manage Users... Shift+F8
Inform
USERID is a member of these groups
Group ID
Comment

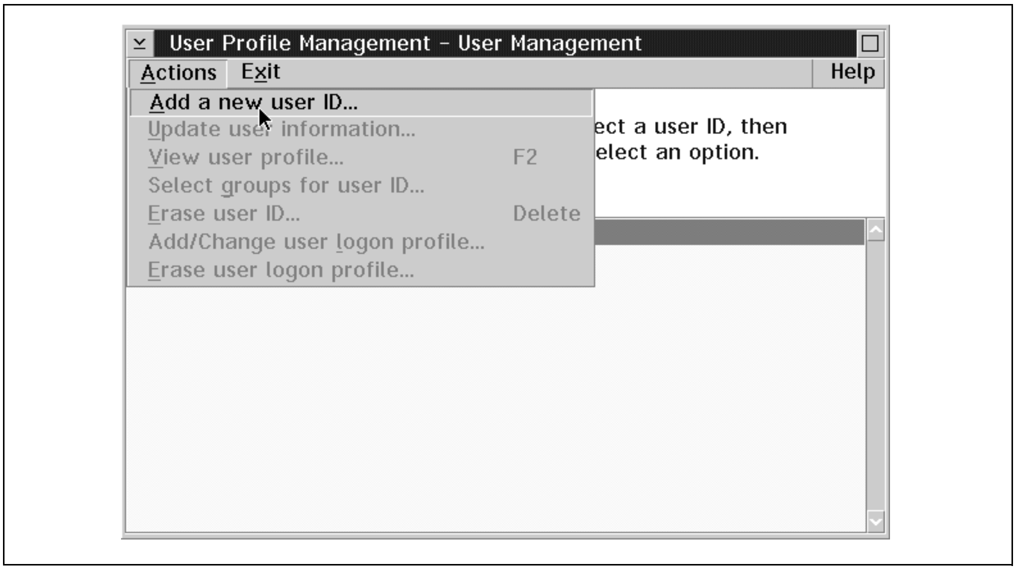
User type: Administrator
User comment: Default User ID

Password is required
Password last changed 2277 days ago
Access is allowed

Figure 8-3 User Profile

Step 4 Select **Manage Users...** from the **Manage** action bar selection.

The User Profile Management - User Management screen is displayed. See Figure 8-4.

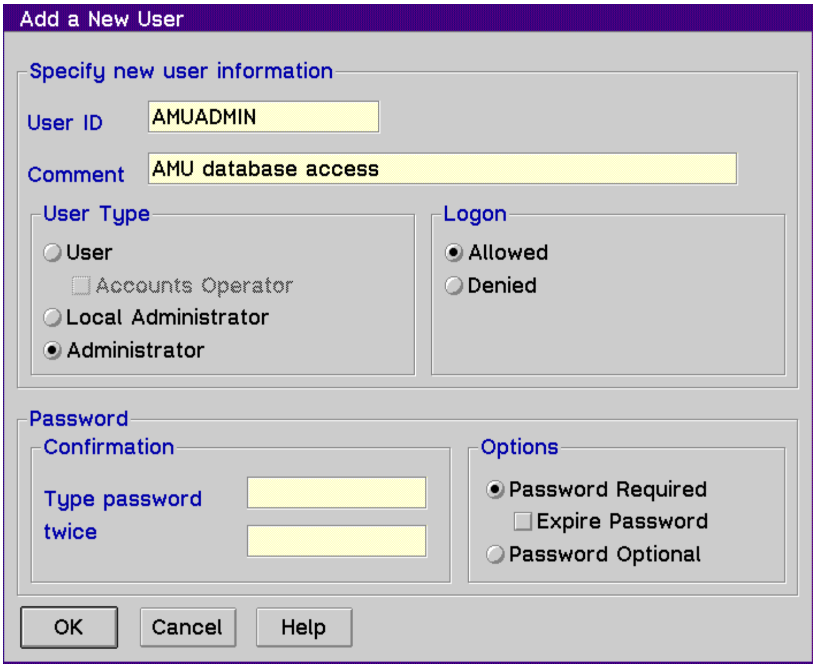

User Profile Management - User Management
Actions
Exit
Help
Add a new user ID...
Update user information...
View user profile... F2
Select groups for user ID...
Erase user ID... Delete
Add/Change user logon profile...
Erase user logon profile...

ect a user ID, then
elect an option.

Figure 8-4 User Management

Step 5 Select **Add a new user ID...** from the **Actions** menu selection.

The Add a New User screen appears. See Figure 8-5.



Add a New User

Specify new user information

User ID: AMUADMIN

Comment: AMU database access

User Type

○ User

☐ Accounts Operator

○ Local Administrator

● Administrator

Logon

● Allowed

○ Denied

Password

Confirmation

Type password twice

Options

● Password Required

☐ Expire Password

○ Password Optional

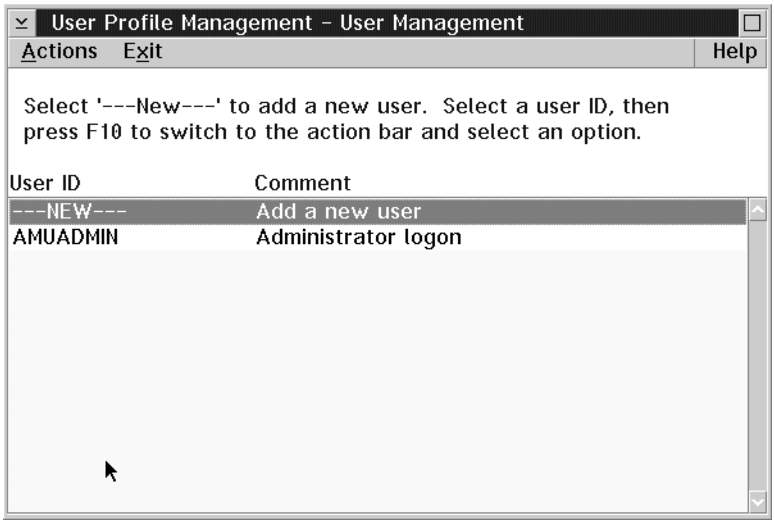
Figure 8-5 Add a New User

Step 6 In the Add a New User window,

- enter **AMUADMIN** in the User ID entry field
- enter **AMU database access** the Comment entry field
- check the **Administrator** button in the User type field
- check the **Allowed** button in the Logon field,
- check the **Password Required** in the Options field
- enter the password in the Type Password and twice entry fields (You get the Password from ADIC or ADIC/GRAU)

Select and press the **OK** push-button to continue.

The User Profile Management - User Management screen appears again. Refer to Figure 8-6 on page 8-7.



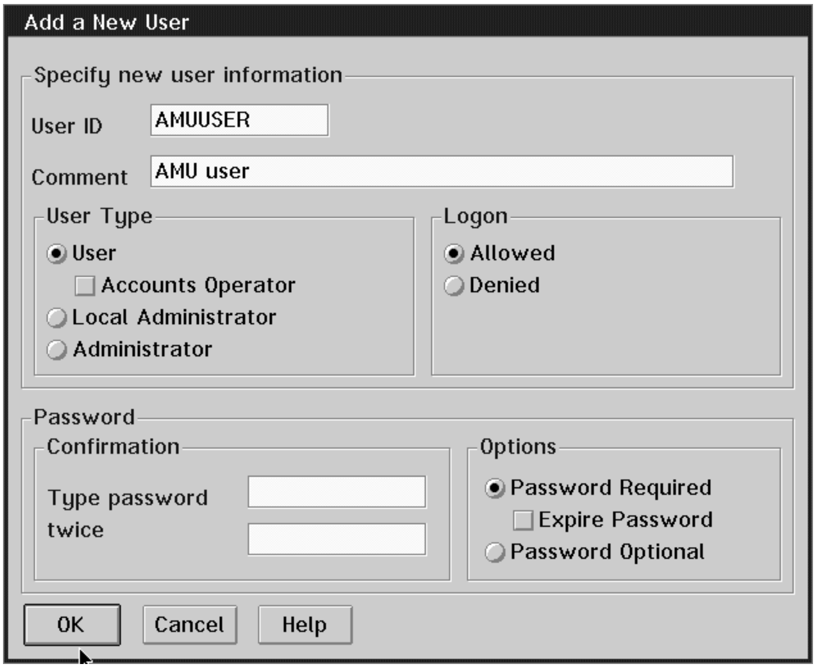
Select '---New---' to add a new user. Select a user ID, then press F10 to switch to the action bar and select an option.

User ID	Comment
---NEW---	Add a new user
AMUADMIN	Administrator logon

Figure 8-6 User Management

Step 7 Add another user by selecting **Add a new user ID...** from the **Actions** menu selection.

The Add a New User screen appears. See Figure 8-7.



Specify new user information

User ID: AMUUSER

Comment: AMU user

User Type
- ● User
  - ☐ Accounts Operator
- ○ Local Administrator
- ○ Administrator

Logon
- ● Allowed
- ○ Denied

Password

Confirmation

Type password twice

Options
- ● Password Required
  - ☐ Expire Password
- ○ Password Optional

Figure 8-7 Add a New User

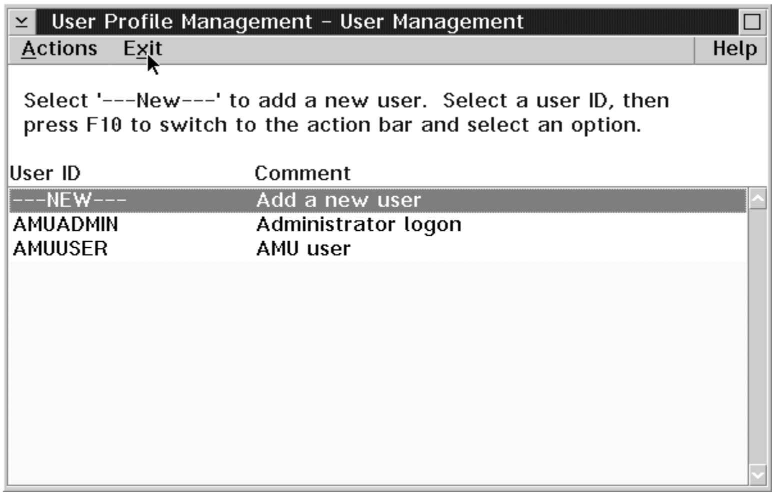
Step 8 In the Add a New User window:

- enter **AMUUSER** in the User ID entry field
- enter **AMU User Logon** in the Comment entry field
- check the **Administrator** button in the User type field
- check the **Allowed** button in the Logon field
- check the **Password Required** in the Options field
- enter **AMUUSER** as the password in the Type Password twice entry fields

Note
Version 1.xx uses *User*, version 2.xx uses *Administrator* as the User type.

Select and press the **OK** push-button to continue.

The User Profile Management - User Management screen appears again. See Figure 8-8.



Select '---New---' to add a new user. Select a user ID, then press F10 to switch to the action bar and select an option.

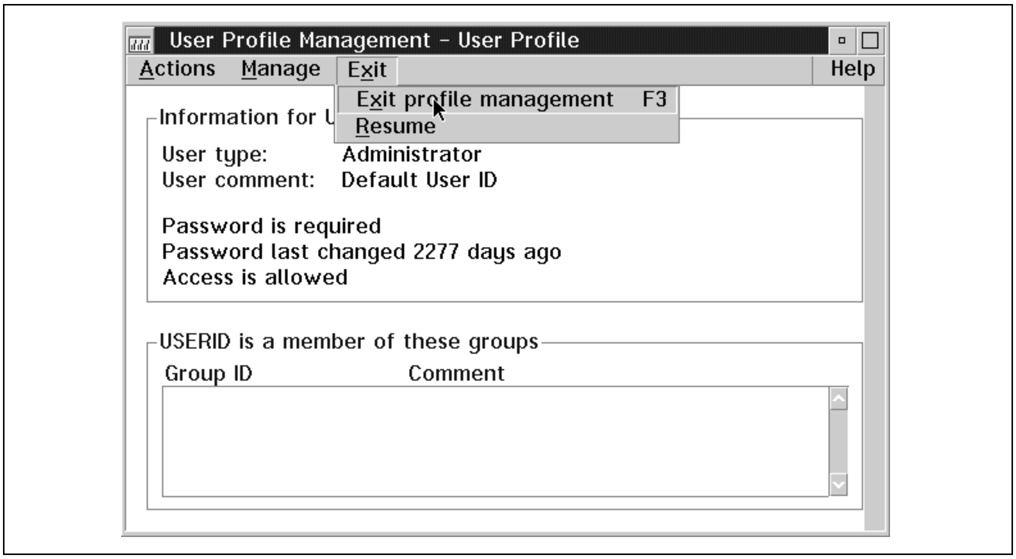
User ID	Comment
---NEW---	Add a new user
AMUADMIN	Administrator logon
AMUUSER	AMU user

Figure 8-8 User Profile Management

Step 9 Select **Exit** from the action bar menu.

Select **Exit user management** to exit.

The User Profile Management screen appears. Refer to Figure 8-9 on page 8-9.


User Profile Management - User Profile
Actions
Manage
Exit
Help
Exit profile management F3
Resume
Information for U
USERID is a member of these groups
Group ID
Comment

User type: Administrator
User comment: Default User ID

Password is required
Password last changed 2277 days ago
Access is allowed

Figure 8-9 User Profile

Step 10 Select **Exit** from the action bar menu.

Select **Exit profile management** to exit.

Step 11 Select and double-click the **Logoff** icon and log off USERID.

Step 12 Close the User Profile Management folder.

Step 13 The DATABASE 2 access rights for the AMU Archive Management Software are now established.

The current default *USERID / PASSWORD* logon parameters may be deleted as follows:

a. From the **User Profile Management** (Account Management) icon, logon as Administrator, using the *AMUADMIN / xxxxxxxxx* logon parameters.

b. Select **Manage Users...** from the Manage action bar menu selection.

c. Select and highlight the USERID profile. Then select **Actions** from the action bar menu and choose **Erase user ID...**

d. Make sure the Erase User ID window displays *USERID* as the User ID. Select and press the **Erase ID** push-button.

e. The USERID logon user id is now deleted. Exit from the User Management and User Profile windows and close the User Profile Management folder.

The data base access rights configuration is now complete.

MPTS / LAPS Configuration

The Multi-Protocol Transport Services (MPTS) and LAN Adapter Protocol Support (LAPS) software configure adapter and protocol support for the specific network connection and communication.

MPTS is part of OS/2 Warp Connect and includes the LAPS software. Older versions of Communications Manager/2 included LAPS on a separate diskette. Newer versions do not include LAPS on a separate diskette.

Whether LAPS was installed from the TCP/IP for OS/2 software package, the Communications Manager/2 software package, or through MPTS support with OS/2 Warp Connect, the configuration is identical. MPTS has added configuration screens to request input before loading the LAPS program.

MPTS or LAPS require the following LAN transport configuration to:

- define the network adapter for LAN access
- add the network protocol for the selected adapter
- optionally edit the network adapter and protocol parameters

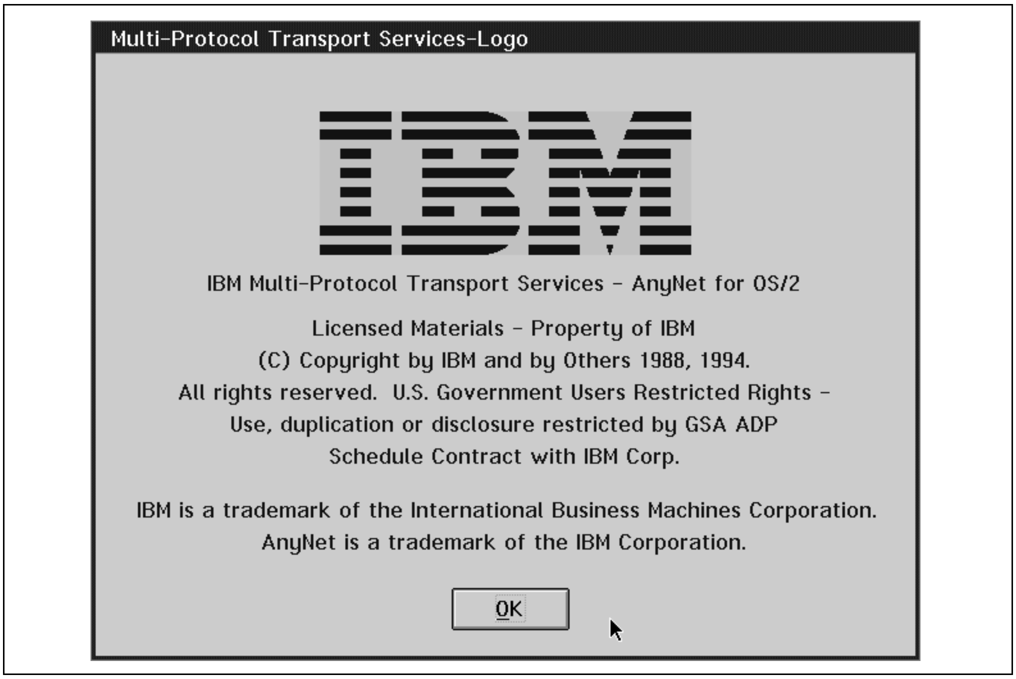
☞ **Note**

Token-Ring adapter card connections to an MVS host require that the adapter address be entered as a locally administered address.

The following section describes the configuration via MPTS. MPTS is invoked from the MPTS Desktop icon. If MPTS support is not installed, invoke the LAPS program from the `C:\IBMCOM` directory by typing `LAPS`.

Step 1 Select and double-click the Desktop **MPTS** icon.

The Multi-Protocol Transport Services - Logo screen appears. See Figure 8-10



Multi-Protocol Transport Services-Logo

IBM Multi-Protocol Transport Services - AnyNet for OS/2

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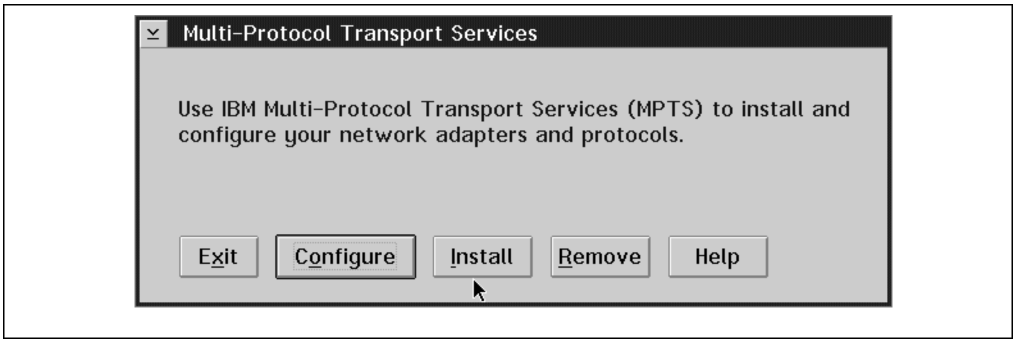
All rights reserved. U.S. Government Users Restricted Rights -
Use, duplication or disclosure restricted by GSA ADP
Schedule Contract with IBM Corp.

IBM is a trademark of the International Business Machines Corporation.
AnyNet is a trademark of the IBM Corporation.

Figure 8-10 MPTS Logo

Step 2 Press the **OK** push-button to continue.

The Multi-Protocol Transport Services screen is displayed. See Figure 8-11.



Multi-Protocol Transport Services

Use IBM Multi-Protocol Transport Services (MPTS) to install and configure your network adapters and protocols.

Figure 8-11 Multi-Protocol Transport Services

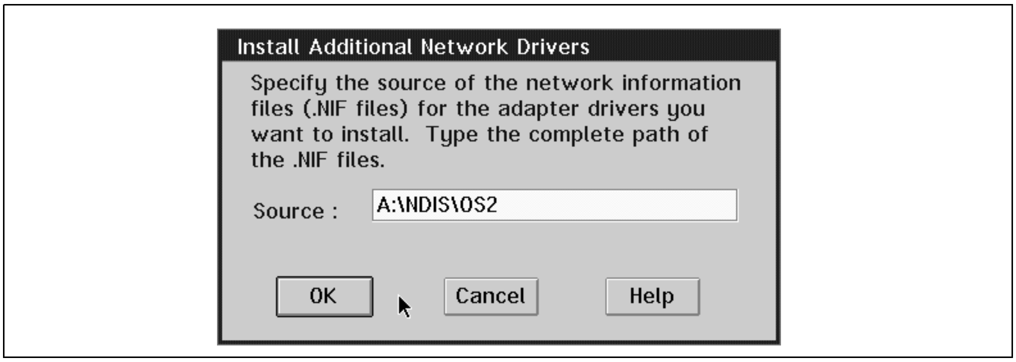
Step 3 The **Multi-Protocol Transport Services** window provides the option to install or configure transport services.

Note

You may want to try to configure the network adapter first. If the adapter is not found in the LAPS adapter selection list, you may cancel and return to this window to install adapter support from the adapter option diskette.

a. Select and press the **Install** push-button to load additional network adapter support.

The Install Additional Network Drivers screen is displayed. See Figure 8-12.



Install Additional Network Drivers

Specify the source of the network information files (.NIF files) for the adapter drivers you want to install. Type the complete path of the .NIF files.

Source : A:\NDIS\OS2

Figure 8-12 Install Additional Network Drivers

Note

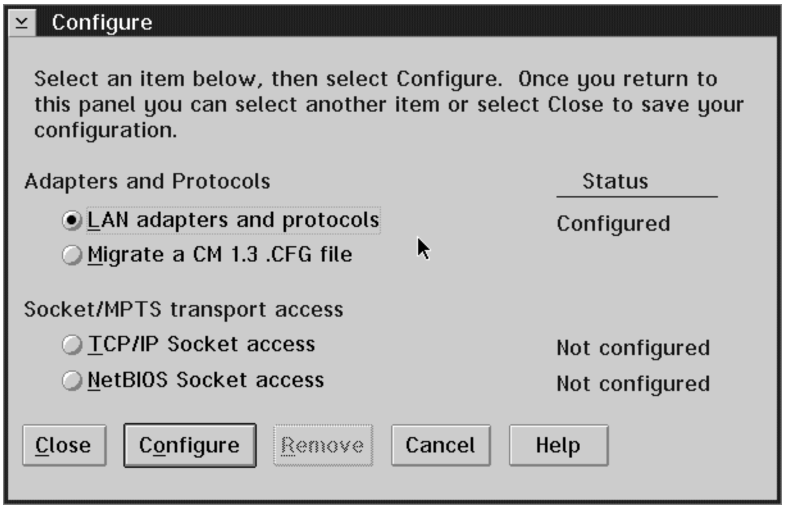
Refer to the adapter option diskette README file or adapter documentation to locate the correct path. Figure 8-12 shows the *3Com Etherlink III family* network driver path.

b. Enter the path where the network drivers are located. Then select and press the **OK** push-button

— or —

a. Select and press the **Configure** push-button to configure a network adapter.

The Configure screen appears. Refer to Figure 8-12 on page 8-12.



Configure

Select an item below, then select Configure. Once you return to this panel you can select another item or select Close to save your configuration.

Adapters and Protocols — Status

- ● LAN adapters and protocols — Configured
- ○ Migrate a CM 1.3 .CFG file

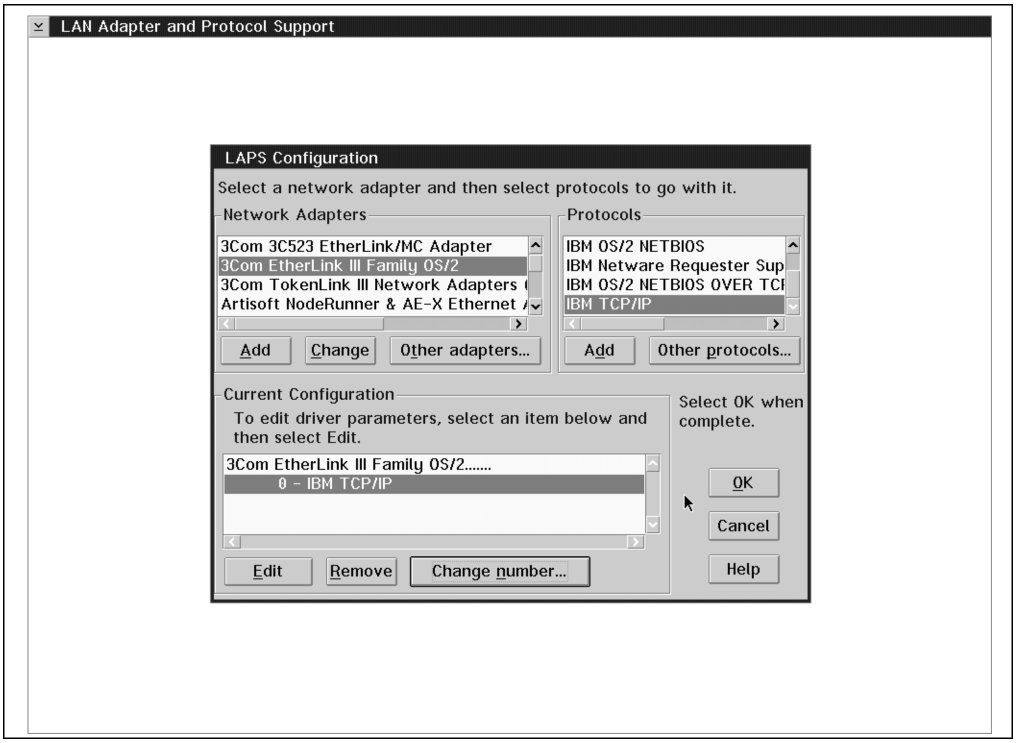
Socket/MPTS transport access

- ○ TCP/IP Socket access — Not configured
- ○ NetBIOS Socket access — Not configured

Figure 8-13 Configure

b. Select the **LAN adapter and protocols** button in the Adapters and Protocols field. Select and press the **Configure** push-button.

After selecting and pressing either the Install or Configure push-buttons, the LAPS Configuration screen appears. Refer to Figure 8-14 on page 8-14.



Select a network adapter and then select protocols to go with it.

Network Adapters:

3Com 3C523 EtherLink/MC Adapter
3Com EtherLink III Family OS/2
3Com TokenLink III Network Adapters (
Artisoft NodeRunner & AE-X Ethernet A

Protocols:

IBM OS/2 NETBIOS
IBM Netware Requester Sup
IBM OS/2 NETBIOS OVER TCP
IBM TCP/IP

To edit driver parameters, select an item below and then select Edit.

3Com EtherLink III Family OS/2.......
0 - IBM TCP/IP

Select OK when complete.

Figure 8-14 LAPS Configuration

Step 4 View the Current Configuration selection list to determine whether the current configuration is correct. Update or remove the configuration as necessary.

Select and highlight the following:

- installed network adapter from the **Network Adapters** selection list

  Select and press the **Add** push-button.

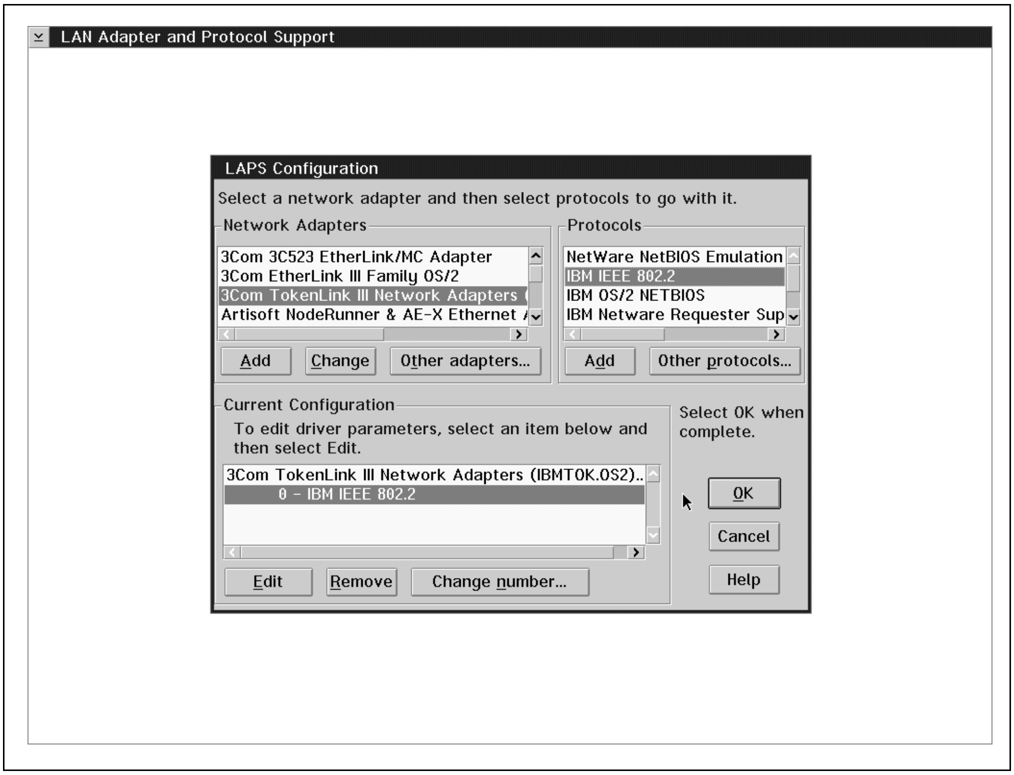
- required network protocol from the **Protocols** selection list.

  Select and press the **Add** push-button.

☞ **Note**

If both Ethernet and Token-Ring adapters are configured, some IBM Token-Ring adapters require that the adapter is configured as an ***alternate*** adapter. Select and highlight the Token-Ring adapter and edit the adapter configuration to assure the Token-Ring adapter is configured as an **ALTERNATE** adapter. Edit system programs adapter definition in micro-channel controller for the correct setting.

Select and press the **OK** push-button to accept the configuration.



LAN Adapter and Protocol Support

LAPS Configuration

Select a network adapter and then select protocols to go with it.

Network Adapters

- 3Com 3C523 EtherLink/MC Adapter
- 3Com EtherLink III Family OS/2
- 3Com TokenLink III Network Adapters (
- Artisoft NodeRunner & AE-X Ethernet /

Protocols

- NetWare NetBIOS Emulation
- IBM IEEE 802.2
- IBM OS/2 NETBIOS
- IBM Netware Requester Sup

Current Configuration

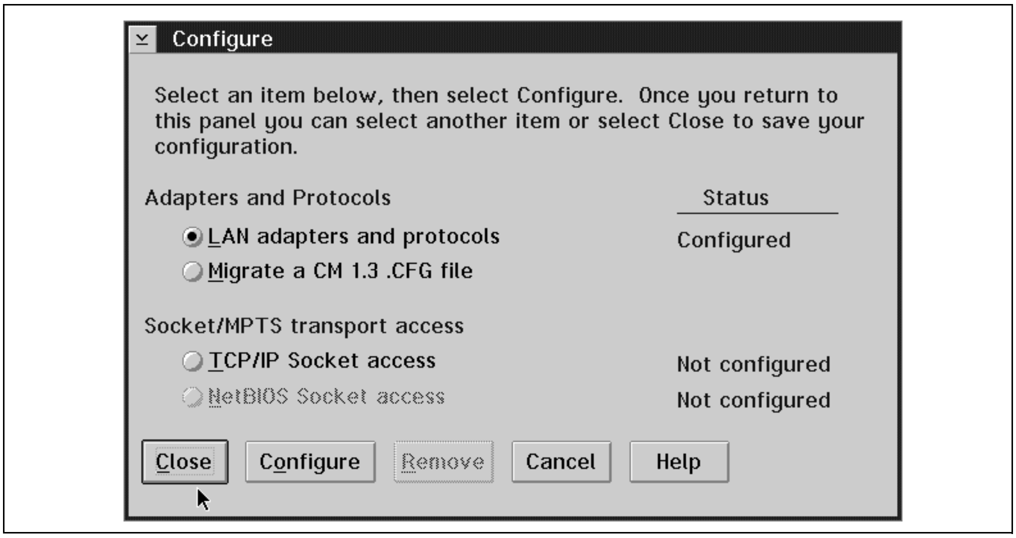
To edit driver parameters, select an item below and then select Edit.

- 3Com TokenLink III Network Adapters (IBMTOK.OS2)..
  - 0 – IBM IEEE 802.2

Select OK when complete.

Figure 8-15 Example of Token - Ring Configuration

The Configure screen displays. See Figure 8-16.



Configure

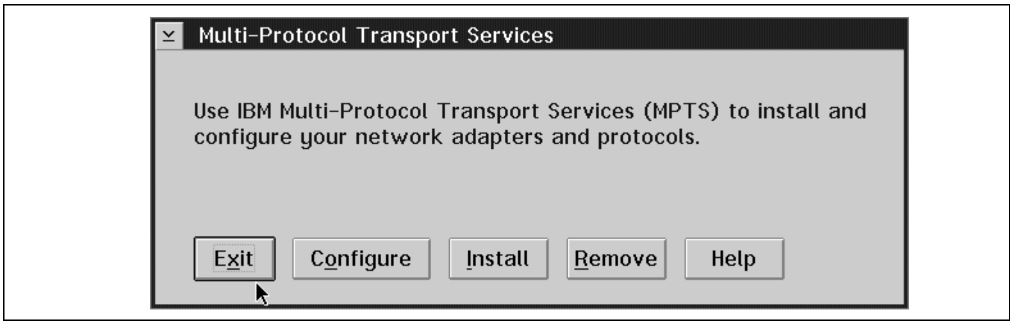
Select an item below, then select Configure. Once you return to this panel you can select another item or select Close to save your configuration.

Adapters and Protocols	Status
● LAN adapters and protocols	Configured
○ Migrate a CM 1.3 .CFG file	
Socket/MPTS transport access	
○ TCP/IP Socket access	Not configured
○ NetBIOS Socket access	Not configured

Figure 8-16 Configure

Step 5 Select and press the **Close** push-button.

The Multi-Protocol Transport Services screen appears. See Figure 8-17.



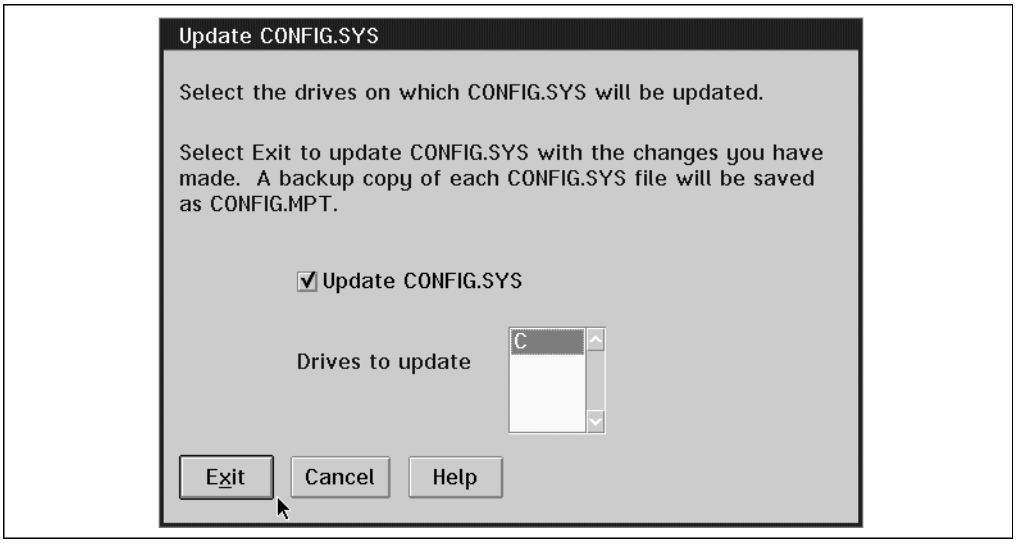
Multi-Protocol Transport Services

Use IBM Multi-Protocol Transport Services (MPTS) to install and configure your network adapters and protocols.

Figure 8-17 Multi-Protocol Transport Services

Step 6 Select the **Exit** push-button.

The Update CONFIG.SYS screen is displayed. See Figure 8-18.



Update CONFIG.SYS

Select the drives on which CONFIG.SYS will be updated.

Select Exit to update CONFIG.SYS with the changes you have made. A backup copy of each CONFIG.SYS file will be saved as CONFIG.MPT.

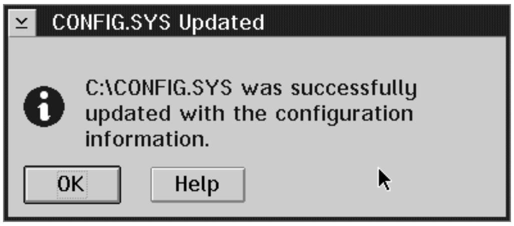
☑ Update CONFIG.SYS

Drives to update: C

Figure 8-18 Update CONFIG.SYS

Step 7 Mark the **Update CONFIG.SYS** check box. Select and press the **Exit** push-button.

After the CONFIG.SYS completes modification, the CONFIG.SYS Updated screen displays. Refer to Figure 8-19 on page 8-18.


CONFIG.SYS Updated

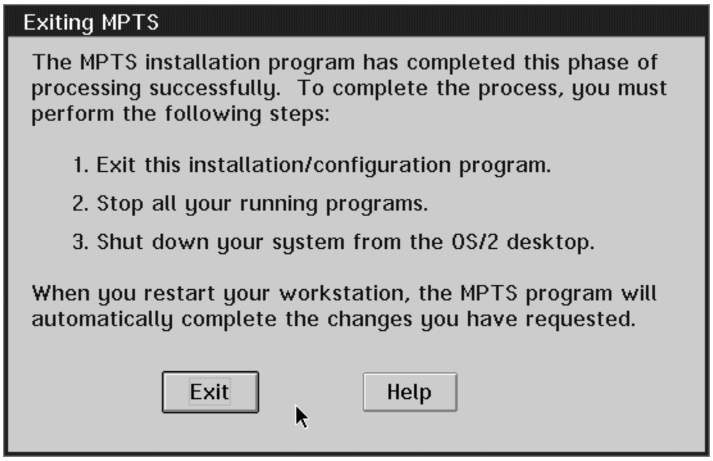
C:\CONFIG.SYS was successfully updated with the configuration information.

Figure 8-19 CONFIG.SYS Updated

Step 8 Select and press the **OK** push-button to exit the MPTS configuration.

The Exiting MPTS screen appears. See Figure 8-20.

.


Exiting MPTS

The MPTS installation program has completed this phase of processing successfully. To complete the process, you must perform the following steps:

1. Exit this installation/configuration program.
2. Stop all your running programs.
3. Shut down your system from the OS/2 desktop.

When you restart your workstation, the MPTS program will automatically complete the changes you have requested.

Figure 8-20 Exiting MPTS

Step 9 Select and press the **Exit** push-button.

The LAN adapter and protocol support is now installed and configured.

Shut down and boot the AMU controller to have the CONFIG.SYS changes take effect.

TCP/IP Configuration

TCP/IP requires configuration prior to network communication. The following TCP/IP configuration is based on the OS/2 Warp Connect TCP/IP installation.

TCP/IP for OS/2 is configured similarly to the discussion below. However, TCP/IP for OS/2 displays different configuration notebook windows.

Both configuration notebooks

- configure the AMU controller IP address and subnet mask for the installed network adapter,
- start the portmap service if DAS software access is required
- if DAS software access is required, the HOSTS file is edited to configure the AMU controller IP address and associated host name,
- leave all other configuration options as defaults.

Follow the steps below for a detailed configuration description.

Step 1 Select and double-click the Desktop **TCP/IP** icon.

The TCP/IP Icon View screen displays. See Figure 8-21.

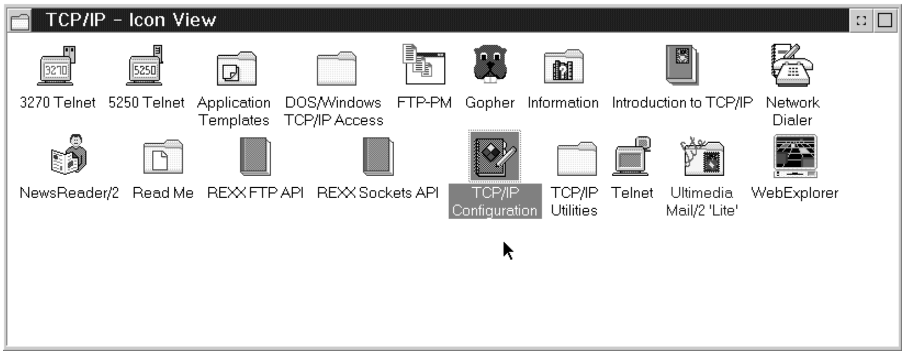
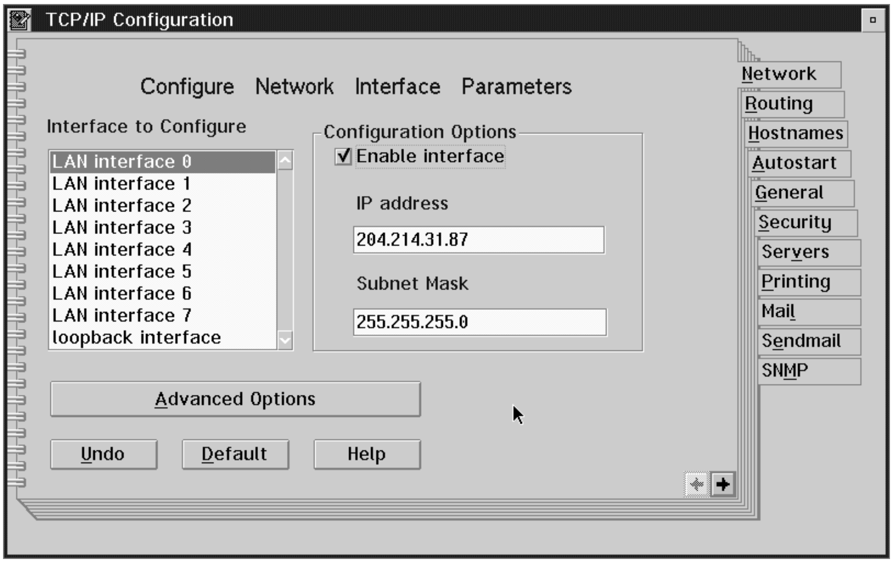


Figure 8-21 TCP/IP - Icon View folder

Step 2 Select and double-click the **TCP/IP Configuration** icon.

The TCP/IP Configuration, page 1 screen displays. Refer to Figure 8-22 on page 8-20.



TCP/IP Configuration

Configure Network Interface Parameters

Interface to Configure

- LAN interface 0
- LAN interface 1
- LAN interface 2
- LAN interface 3
- LAN interface 4
- LAN interface 5
- LAN interface 6
- LAN interface 7
- loopback interface

Configuration Options

☑ Enable interface

IP address: 204.214.31.87

Subnet Mask: 255.255.255.0

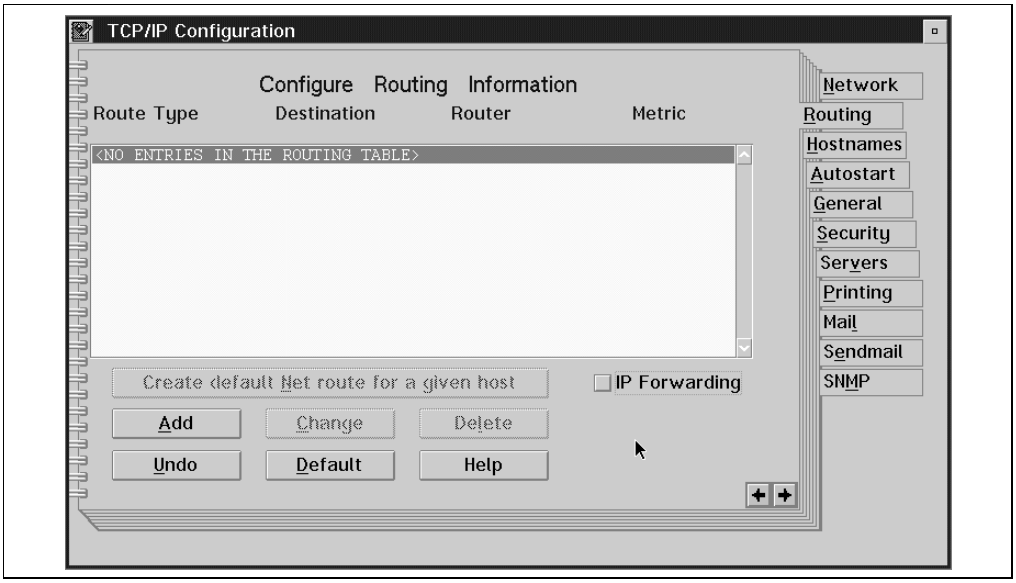
Figure 8-22 TCP/IP Configuration, page 1

Step 3 In the TCP/IP Configuration window,

- select and highlight **LAN interface 0** in the Interface to Configure selection list,
- check the **Enable interface** check box and enter:
  - IP address in the 32-bit dotted decimal noted form (aaa.bbb.ccc.ddd) to identify the AMU in the Internet or Intranet
  - subnet mask in the 32-bit dotted decimal notation for specify how much ofthe local address portion of the IP-addree are reserved for the subnet work address (e.g.255.255.255.0)
- repeat the procedure for each installed LAN adapter used ip adressing

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 2 screen displays. Refer to Figure 8-23 on page 8-21.



<NO ENTRIES IN THE ROUTING TABLE>

☐ IP Forwarding

Figure 8-23 TCP/IP Configuration, page 2

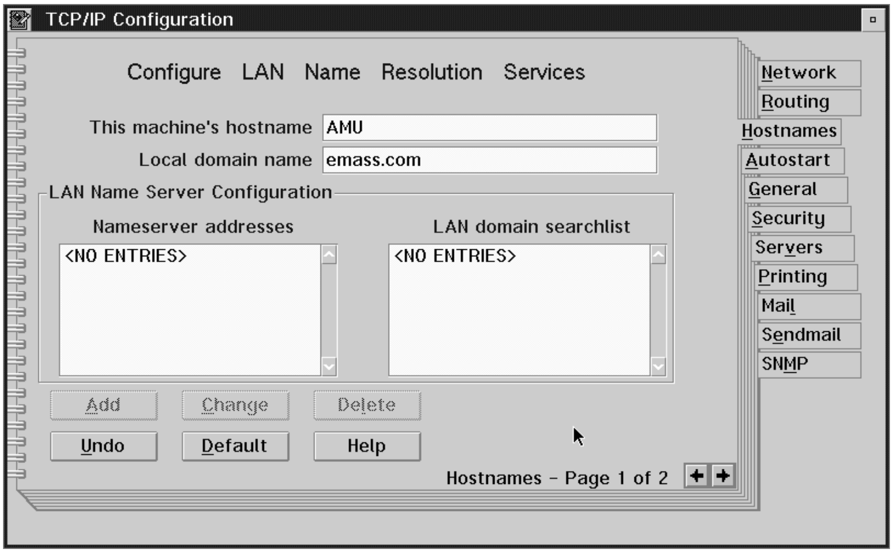
Note

A router configuration is required for host connections that span across multiple networks or domains. The LAN aministrator provides necessary routing configuration information.

Step 4 If the AMU controller requires router information to communicate with the connected host(s) via the TCP/IP router, select and press the **Add** push-button to add the router IP address and router name.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 3 screen displays. Refer to Figure 8-24 on page 8-22.



Configure LAN Name Resolution Services

This machine's hostname: AMU

Local domain name: emass.com

LAN Name Server Configuration

Nameserver addresses: <NO ENTRIES>

LAN domain searchlist: <NO ENTRIES>

Hostnames – Page 1 of 2

Figure 8-24 TCP/IP Configuration, page 3

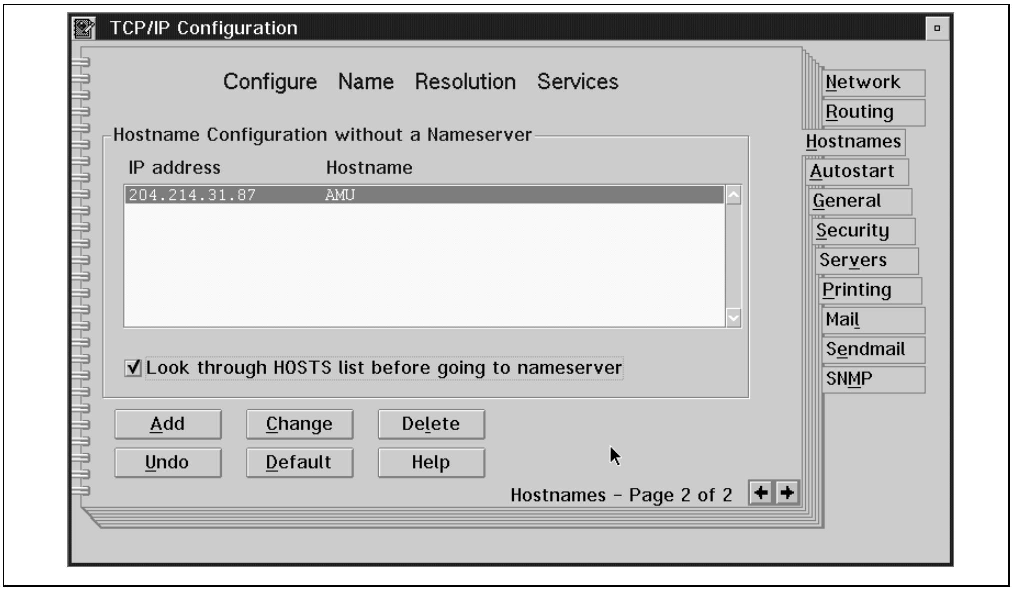
Step 5 Optionally enter This machine’s hostname

- ASCII name to identify the AMU-PC in the network (this parameter are not used in the AMU software)

Step 6 Only if you use a Domain name server, enter the network domain in the **Local domain name** entry field.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 4 screen displays. Refer to Figure 8-25 on page 8-23.



Configure Name Resolution Services

Hostname Configuration without a Nameserver

IP address	Hostname
204.214.31.87	AMU

☑ Look through HOSTS list before going to nameserver

Figure 8-25 TCP/IP Configuration, page 4

Step 7 Check the **Look through HOSTS list before going to nameserver** check box and then select and press the **Add** push-button to add the AMU controller’s IP address and controller name and alle communications partners (Dual AMU, Remote AMU, Remottr control PC, DAS clients). Alternative you can edit the file HOSTS in C:\MPTN\ETC or C:\TCPIP\ETC to mapping ip address and hostname

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 5 screen displays. Refer to Figure 8-26 on page 8-24.

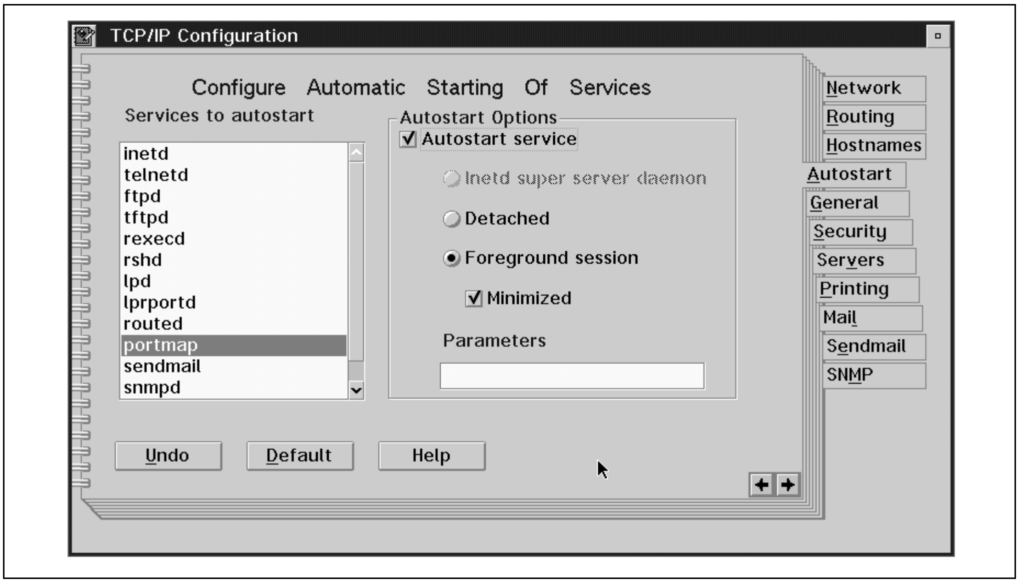


Figure 8-26 TCP/IP Configuration, page 5

Note

If DAS support is not configured, TCP/IP services do not need to be started.

Step 8 If the AMU controller requires configuration for DAS support, continue as follows:

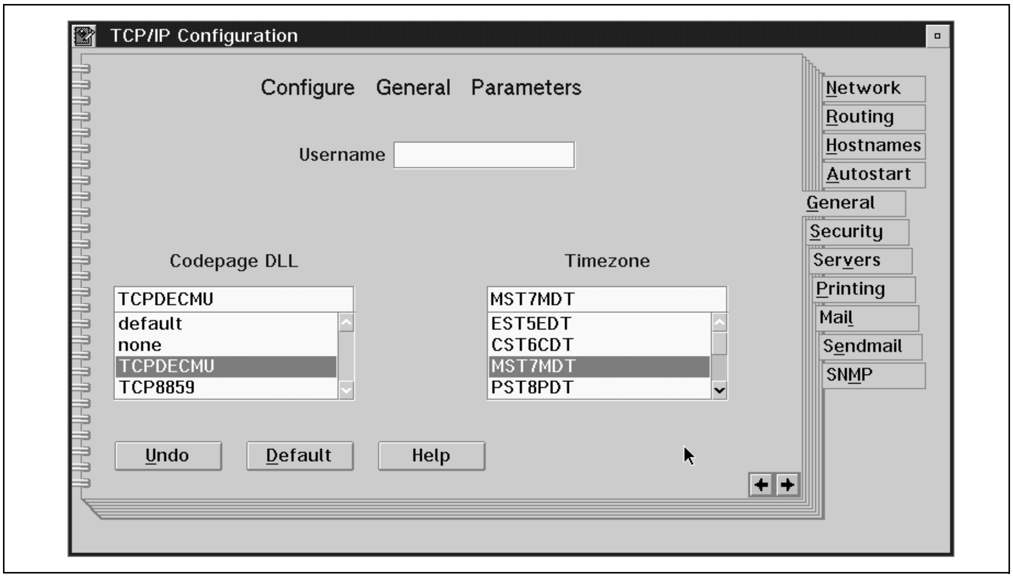
- select **portmap** from the Services to autostart selection list,
- check the **Autostart service** checkbox in the Autostart Options field,
- check the **Foreground session** button in the Autostart Options field,
- check the **Minimized** checkbox in the Autostart Options field.

- select also t**elnetd** and **ftpd** with minimized or detached for remote support and unix administration

- select the **rshd** if you work with a DAS Windows NT or Win 95 client.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 6 screen displays. Refer to Figure 8-27 on page 8-25.



Configure General Parameters

Username

Codepage DLL

TCPDECMU

default
none
TCPDECMU
TCP8859

Timezone

MST7MDT

EST5EDT
CST6CDT
MST7MDT
PST8PDT

Figure 8-27 TCP/IP Configuration, page 6

Step 9 Dont change the General Parameters.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 7 screen displays. Refer to Figure 8-28 on page 8-26.

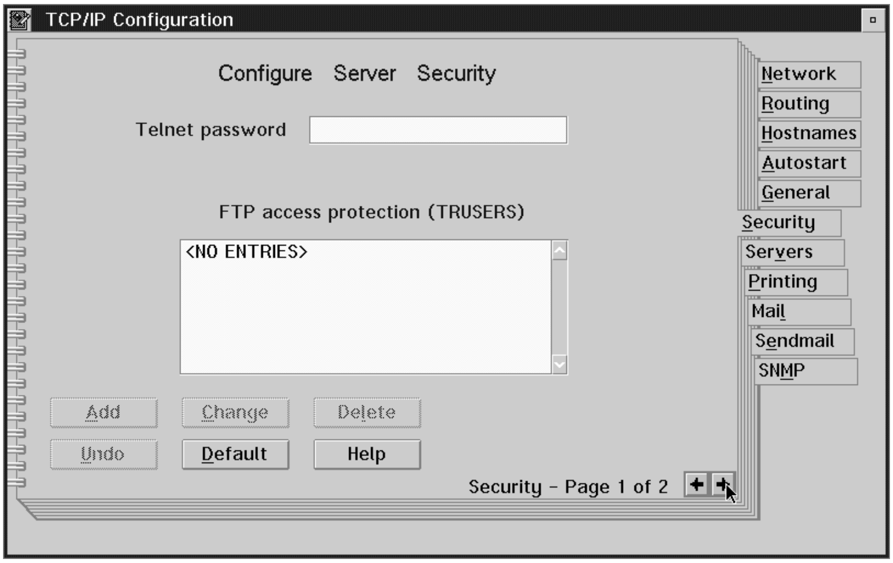
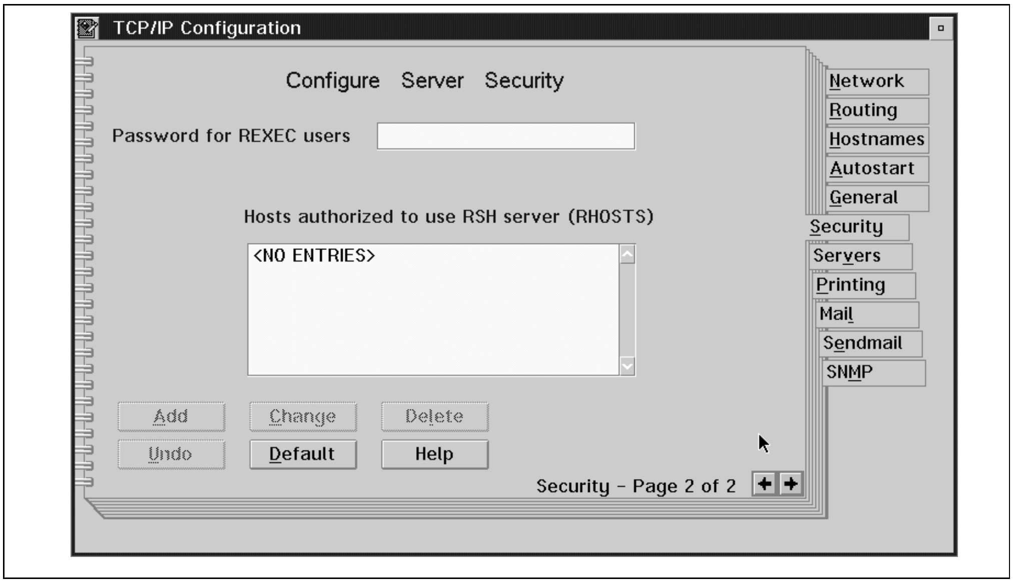


Figure 8-28 TCP/IP Configuration, page 7

Step 10 Enter a Telnet password and add an FTP user with password for remote diagnostic and administration(not required for standard AMU to host TCP/IP connections).

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 8 screen displays. Refer to Figure 8-29 on page 8-27.



TCP/IP Configuration

Configure Server Security

Password for REXEC users

Hosts authorized to use RSH server (RHOSTS)

<NO ENTRIES>

Security - Page 2 of 2

Figure 8-29 TCP/IP Configuration, page 8

Step 11 Add the DAS Windows NT and Windows 95 clients to the list RHOSTS but keep the field User empty. (Remote AMU program execution is not required for standard AMU operation).

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 9 screen displays. Refer to Figure 8-30 on page 8-28.

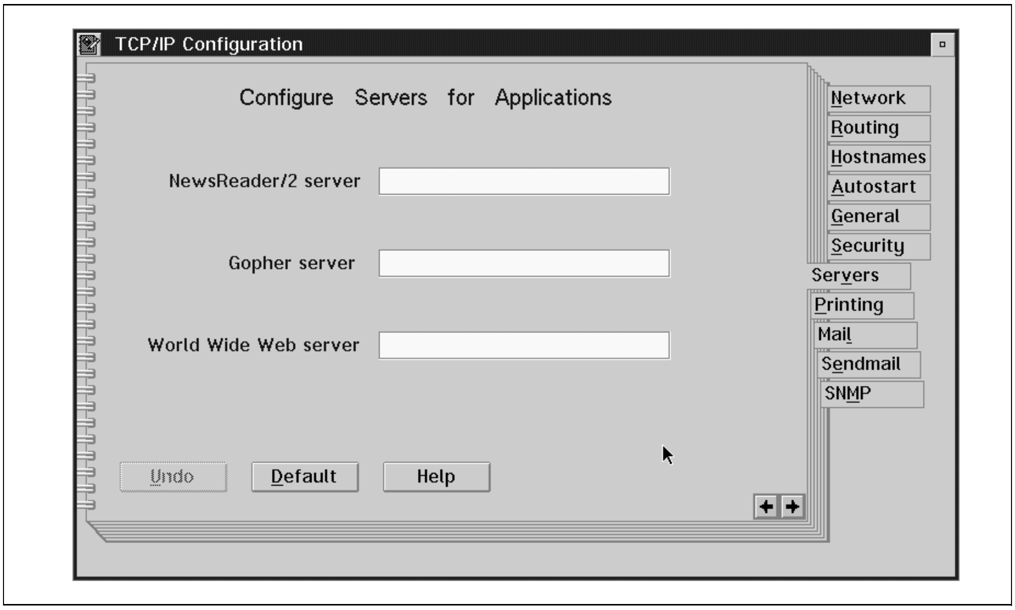
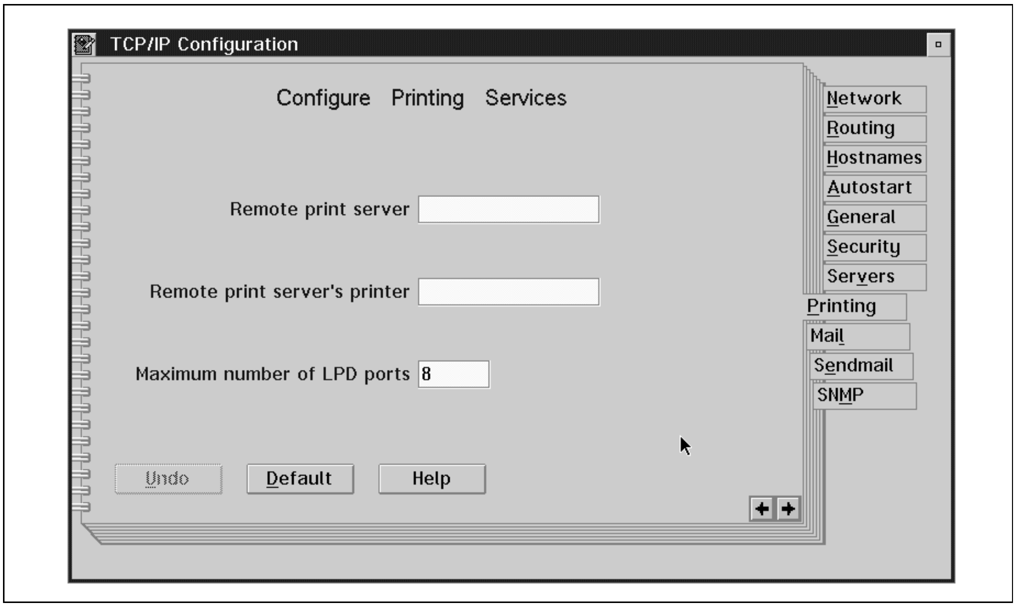


Figure 8-30 TCP/IP Configuration, page 9

Step 12 TCP/IP server configurations are not required for standard AMU- host communication.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 10 screen displays. Refer to Figure 8-31 on page 8-29.



Remote print server

Remote print server's printer

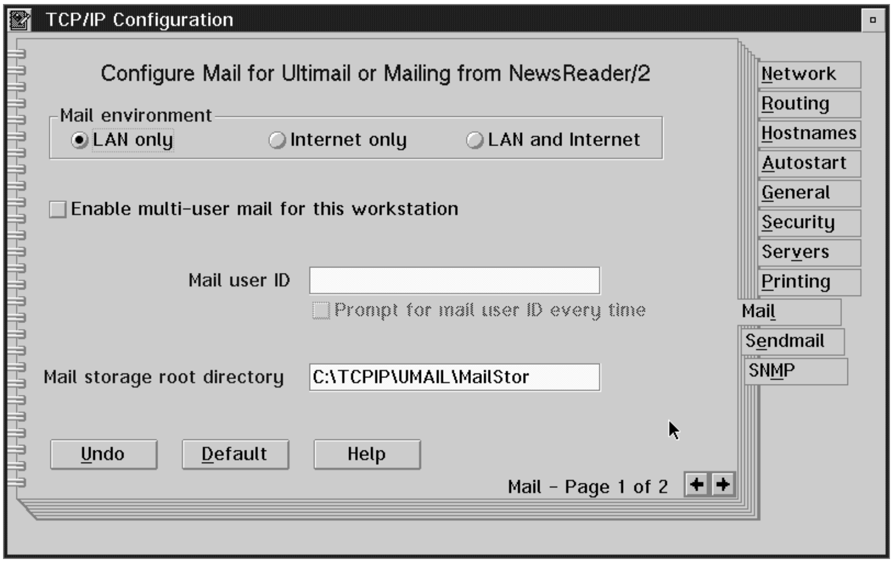
Maximum number of LPD ports 8

Figure 8-31 TCP/IP Configuration, page 10

Step 13 TCP/IP print services are not configured for AMU-host communication.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 11 screen displays. Refer to Figure 8-32 on page 8-30.



Configure Mail for Ultimail or Mailing from NewsReader/2

Mail environment
● LAN only ○ Internet only ○ LAN and Internet

☐ Enable multi-user mail for this workstation

Mail user ID

☐ Prompt for mail user ID every time

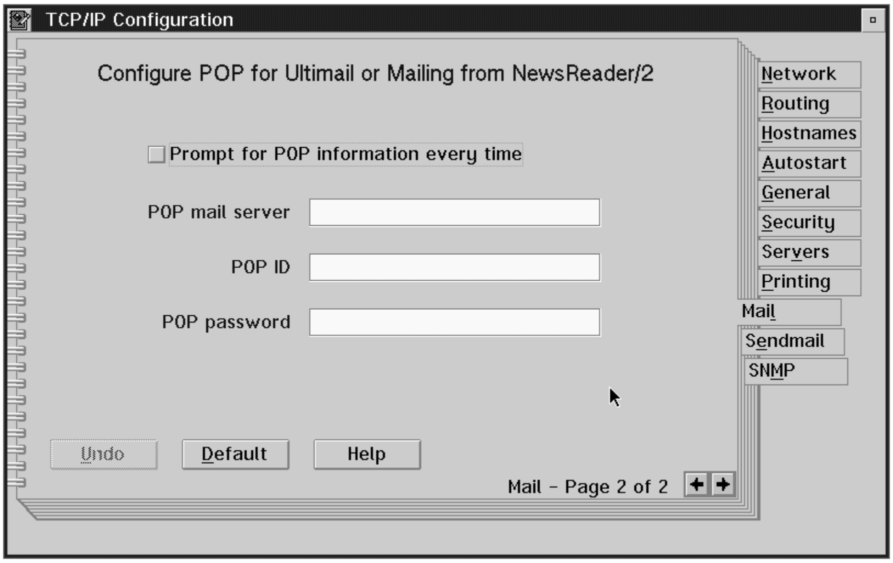
Mail storage root directory C:\TCPIP\UMAIL\MailStor

Figure 8-32 TCP/IP Configuration, page 11

Step 14 Mail services are not configured for AMU - host communication.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 12 screen displays. Refer to Figure 8-33 on page 8-31.



Configure POP for Ultimail or Mailing from NewsReader/2

☐ Prompt for POP information every time

POP mail server

POP ID

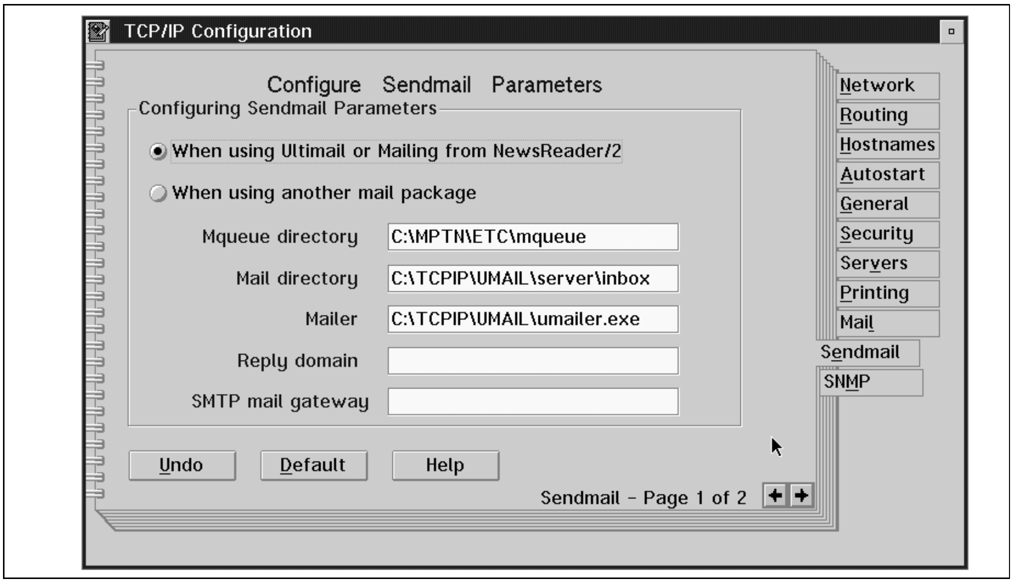
POP password

Figure 8-33 TCP/IP Configuration, page 12

Step 15 POP connections are not configured because mail services are not supported.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 13 screen displays. Refer to Figure 8-34 on page 8-32.


TCP/IP Configuration

Configure Sendmail Parameters

Configuring Sendmail Parameters

● When using Ultimail or Mailing from NewsReader/2

○ When using another mail package

Mqueue directory: C:\MPTN\ETC\mqueue

Mail directory: C:\TCPIP\UMAIL\server\inbox

Mailer: C:\TCPIP\UMAIL\umailer.exe

Reply domain:

SMTP mail gateway:

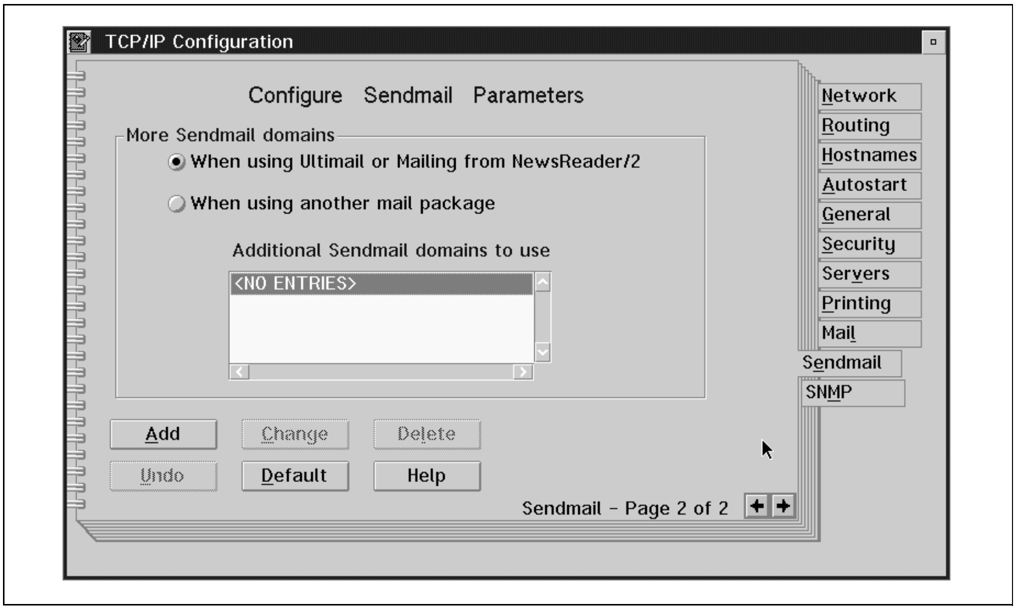
Sendmail - Page 1 of 2

Figure 8-34 TCP/IP Configuration, page 13

Step 16 Sendmail services are not configured.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 14 screen displays. Refer to Figure 8-35 on page 8-33.



TCP/IP Configuration

Configure Sendmail Parameters

More Sendmail domains

● When using Ultimail or Mailing from NewsReader/2

○ When using another mail package

Additional Sendmail domains to use

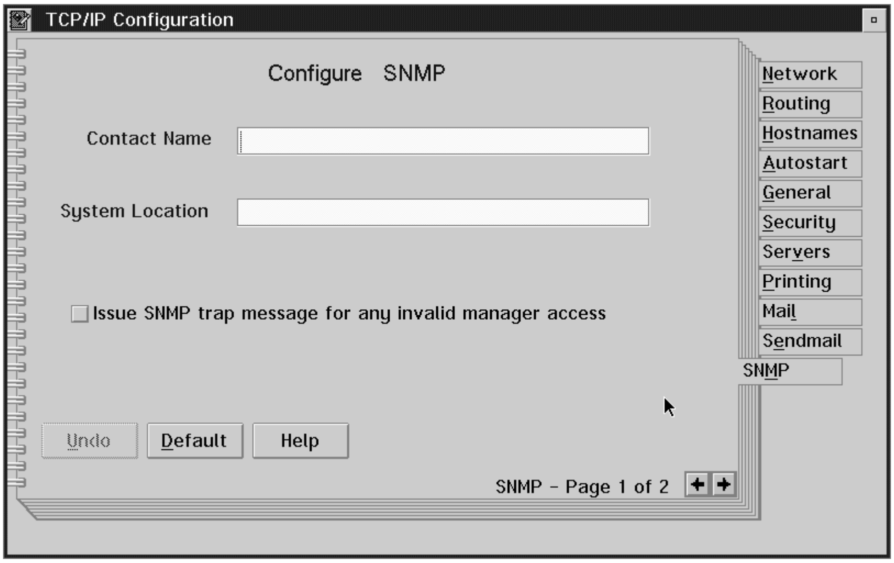
<NO ENTRIES>

Figure 8-35 TCP/IP Configuration, page 14

Step 17 Additional sendmail configuration parameters are not required.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 15 screen displays. Refer to Figure 8-36 on page 8-34.



TCP/IP Configuration

Configure SNMP

Contact Name

System Location

☐ Issue SNMP trap message for any invalid manager access

Figure 8-36 TCP/IP Configuration, page 15

Step 18 SNMP parameters do not require configuration.

Click the lower right notebook arrow to advance to the next page.

The TCP/IP Configuration, page 16 screen displays. Refer to Figure 8-37 on page 8-35.

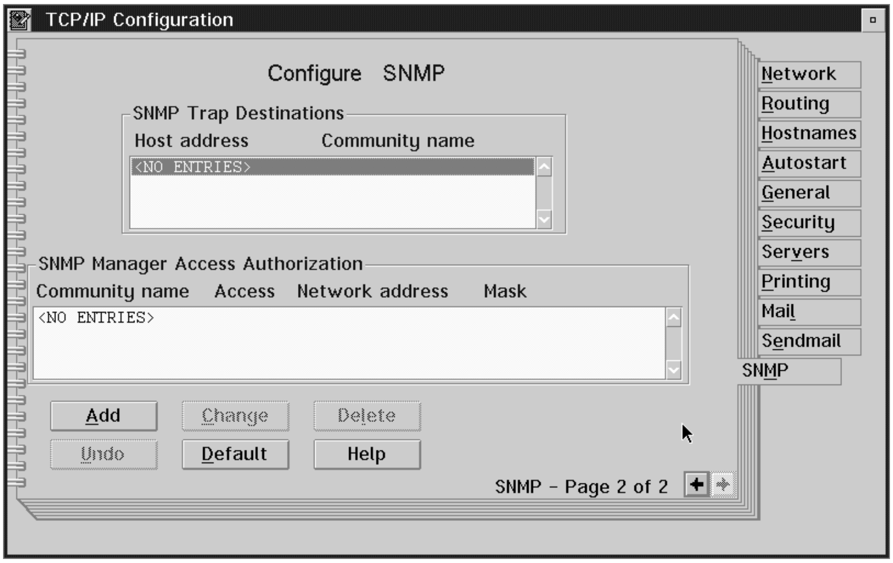
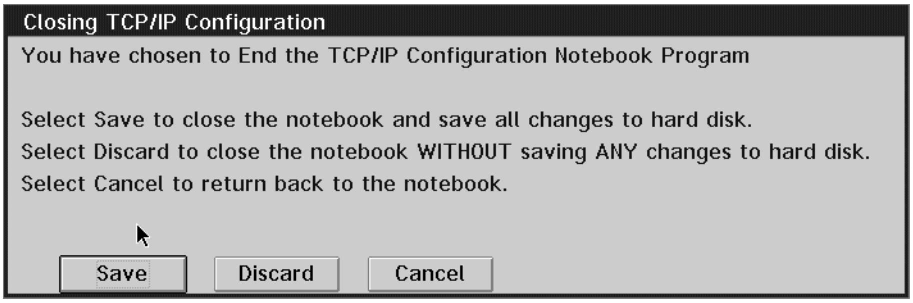


Figure 8-37 TCP/IP configuration, page 16

Step 19 SNMP parameters do not require configuration.

Close the TCP/IP configuration notebook by double-clicking the upper left corner notebook system icon.

The Closing TCP/IP Configuration screen displays. See Figure 8-30 on page 8-28.



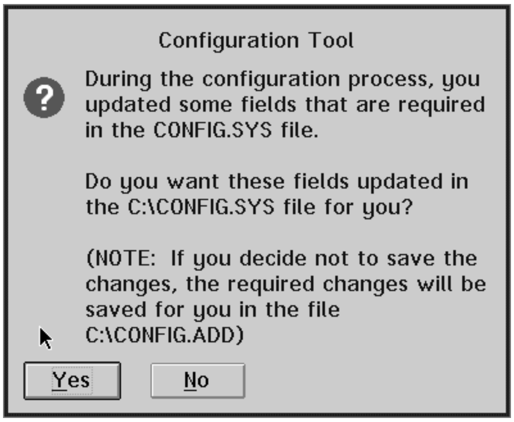
You have chosen to End the TCP/IP Configuration Notebook Program

Select Save to close the notebook and save all changes to hard disk.
Select Discard to close the notebook WITHOUT saving ANY changes to hard disk.
Select Cancel to return back to the notebook.

Figure 8-38 Closing TCP/IP configuration

Step 20 Select and press the **Save** push-button.

The Configuration Tool screen appears. Refer to Figure 8-39 on page 8-36.



Configuration Tool

During the configuration process, you updated some fields that are required in the CONFIG.SYS file.

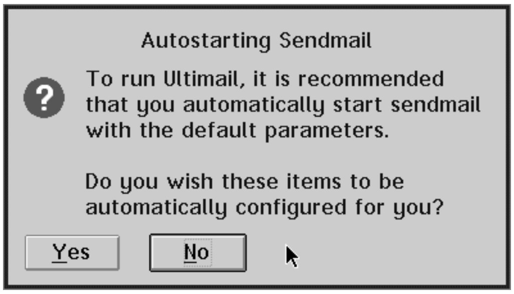
Do you want these fields updated in the C:\CONFIG.SYS file for you?

(NOTE: If you decide not to save the changes, the required changes will be saved for you in the file C:\CONFIG.ADD)

Figure 8-39 Configuration Tool

Step 21 Select and press the **Yes** push-button.

The Autostarting Sendmail screen is displayed. See Figure 8-40.



Autostarting Sendmail

To run Ultimail, it is recommended that you automatically start sendmail with the default parameters.

Do you wish these items to be automatically configured for you?

Figure 8-40 Autostart Sendmail

Step 22 Select and press the **No** push-button.

Step 23 Close the TCP/IP folder.

The TCP/IP configuration is now complete. Changes take effect after shut down and boot of the AMU controller.

CM/2 Configuration

Communications Manager software configurations are necessary for DCAF modem support, AMU to MVS host communication for LU 6.2 (APPC), LU 2, and EXCP connections (3270 coaxial DFT emulation).

Communications Manager/2 configuration file names may be chosen arbitrarily. Table 8-1 lists a configuration file naming convention that should be used to easily identify the connection type. The BOCA configuration file merely configures the Boca modem ACDI support for the DCAF software. If DCAF support is installed, ACDI support may be configured in all other configuration files.

Table 8-1 Configuration File Names

Configuration File	Configuration type
BOCA	Boca modem ACDI configuration file
AMU3270	LU 2 or EXCP via coaxial connection
AMUL62S	LU 6.2 single session with dependent LUs
AMUL62SC	LU 6.2 single session and coaxial 3270 emulation
AMUL62P	LU 6.2 parallel session with independent LUs
AMUL62PC	LU 6.2 parallel session and coaxial 3270 emulation

☞ **Note**

VTAM and HACCPARM definitions are located in *Appendix A*

The configuration selection is determined by the host hardware attachment capability and/or customer preference. Configuration parameters depend on the attached network (network id), host hardware (3174/3745 controller address), and VTAM and HACCPARM definitions.

The following description outlines the CM/2 configuration procedure. The configuration describes the modem support configuration, coaxial and Token-ring 3270 emulation configuration, and single and parallel session APPC configurations. Although the following steps discuss all configuration variations, perform only those configurations that are required for specific host support:

- The ACDI configuration requires:
  - an **Asynchronous ACDI API** definition
  - an appropriate COM port selection
  - and a modem device selection

- The coaxial 3270 emulation configuration requires:
  - **a Coaxial (DFT) 3270 emulation** definition
  - the number of terminal sessions specified
  - each terminal session configured for coaxial connections
- The Token-Ring 3270 emulation configuration requires:
  - a **Token-Ring or other LAN types 3270 emulation** definition,
  - a LAN network connection specification
  - LAN adapter parameter descriptions
  - Local Node characteristics descriptions
  - SNA connections descriptions
  - 3270 emulation terminal definitions for non-coaxial connections
- The APPC serial session configuration requires:
  - a **Token-Ring or other LAN types APPC APIs** definition
  - a LAN network connection specification
  - LAN adapter parameter decriptions
  - Local Node characteristics descriptions
  - SNA connections descriptions
  - SNA features descriptions for a single local LU, the partner LUs, modes, and single transaction program
- The APPC parallel session configuration requires:
  - a **Token-Ring or other LAN types APPC APIs** definition
  - a LAN network connection specification
  - LAN adapter parameter decriptions
  - Local Node characteristics descriptions
  - SNA connections descriptions
  - SNA features descriptions for two (parallel) local LUs, the partner LUs, modes, and two (parallel) transaction programs

Prior to configuring CM/2, obtain the following network parameters from the LAN administrator (or equivalent) to assure successful network configuration. Enter the parameters in Table 8-2.

Table 8-2 LAN Information

Reference	Configuration parameter	Value
A	Network ID	
B	LAN destination address	
C	Local LAN address	
D	Data transfer rate (4/16 Mbit/sec)	

☞ **Note**

Enter the local LAN (Token-Ring) address (Reference C) in the LAPS adapter and protocol configuration. The adapter address is entered as the locally administered address; not as the adapter universally administered address. The LAN destination address is also entered as the locally administered address. Micro-channel AMU controllers may require the selection of an appropriate data transfer rate (Reference D) in the system configuration for the installed Token-Ring adapter.

The following CM/2 parameters are based on the host VTAM and HACCPARM parameters. Table 8-3 on page 8-40 lists the default VTAM settings. These setting should match the Communications Manager/2 settings. Table 8-3 lists reference entry numbers which select and reference the correct CM/2 configuration parameter value in the following CM/2 configuration discussion.

Table 8-3 Default VTAM Settings

Reference	VTAM parameter	Default Value
General		
1	PU-Name (AMU)	OBISAMUP
2	ACB-Name	OBISACB
3270 emulation, LU2		
3	1. Locaddr LU 2	02
4	2. Locaddr LU 2	03
Single Session		
5	LOGMODE	OBISL62S
6	LU 6.2-Name, send	OBISAMUS
7	LU 6.2-Name, receive	OBISAMUR
8	1. Locaddr LU 6.2	04
9	2. Locaddr LU 6.2	05
Parallel Session		
10	LOGMODE	OBISL62P
11	LU 6.2-Name	OBISAMUL

Table 8-4 lists the required matching CM/2, VTAM, and HACCPARM parameter settings.

Table 8-4 CM/2 Parameter Matching

Reference	CM/2	VTAM	HACPARM	DEFAULT
1	Local node name (Local Node Characteristics)	PU-Name		OBISAMUP
2	LU name (Partner LUs)	ACB-Name	HACNET (LU-Statement)	OBISACB
3	LU local/NAU address (3270 session A)	1. Locaddr LU 2		02
4	LU local/NAU address (3270 session B)	2. Locaddr LU 2		03
5	Modes (single session) (SNA Features List)	LOGMODE LU 6.2	HACNET (LM-Statement)	OBISL62S
6	LU name (Local LU)	LU 6.2-Name (send)	HACNET (LU-Statement)	OBISAMUS
7	LU name (Local LU)	LU 6.2-Name (receive)	HACNET (LU-Statement)	OBISAMUR
8	Dependent LU NAU (Local LU)	2. Locaddr LU 6.2 (send)		04
9	Dependent LU NAU (Local LU)	1. Locaddr LU 6.2 (receive)		05
10	Modes (parallel session) (SNA Features List)	LOGMODE LU 6.2	HACNET (LM-Statement)	OBISL62P
11	LU name (Local LU)	LU 6.2 NAME	HACNET (LU-Statement	OBISAMUL
12	Transaction program definition (receive)		HACNET (TPN-Statement)	H01RTP
13	Transaction program definition (send)			H01STP

After all of the required configuration parameters are determined, follow the steps to configure CM/2.

Step 1 From the OS/2 Desktop, select and double-click the **Communications Manager/2** icon.

The Communication Manager Icon View screen displays. See Figure 8-41.

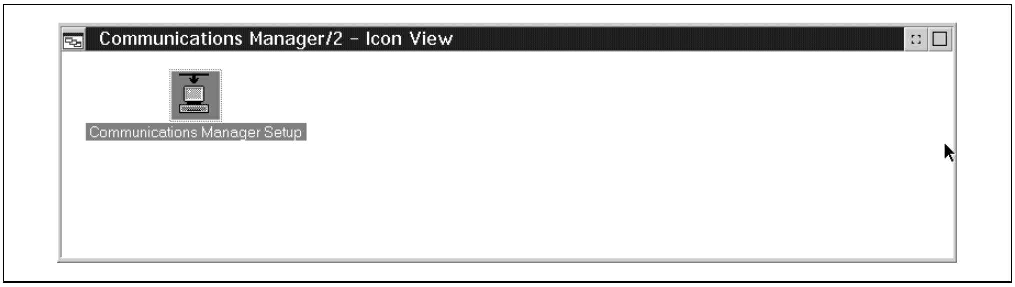
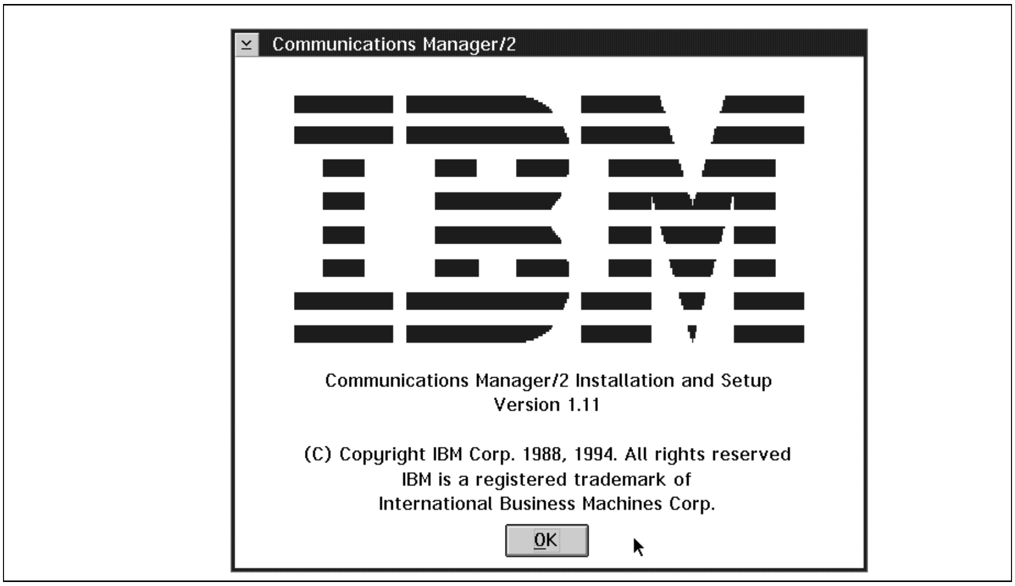

Communications Manager/2 - Icon View
Communications Manager Setup

Figure 8-41 Communications Manager - Icon View

Step 2 Select and double-click the **Communications Manager Setup** icon.

The Communication Manager Logo screen appears. See Figure 8-42.


Communications Manager/2

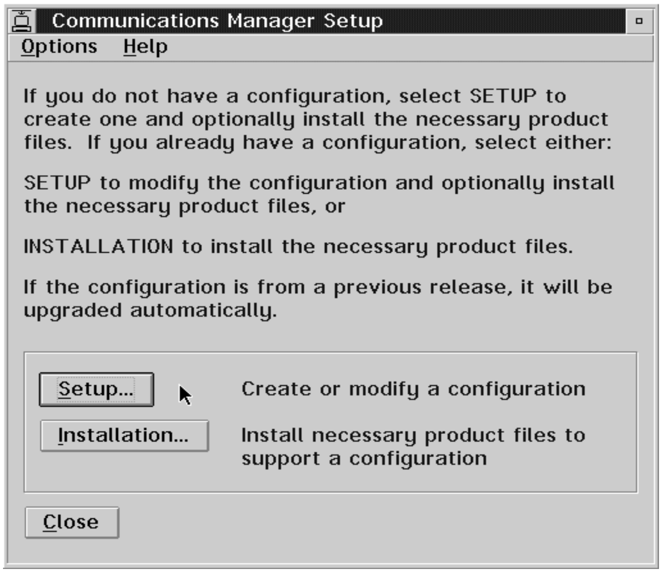
Communications Manager/2 Installation and Setup
Version 1.11

(C) Copyright IBM Corp. 1988, 1994. All rights reserved
IBM is a registered trademark of
International Business Machines Corp.

Figure 8-42 Communications Manager Logo

Step 3 Select and press the **OK** push-button.

The Communication Manager Setup screen is displayed. See Figure 8-43.



If you do not have a configuration, select SETUP to create one and optionally install the necessary product files. If you already have a configuration, select either:

SETUP to modify the configuration and optionally install the necessary product files, or

INSTALLATION to install the necessary product files.

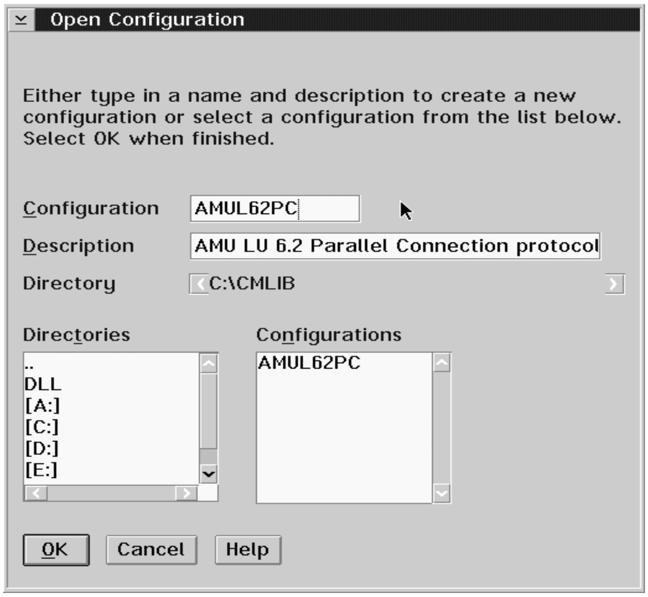
If the configuration is from a previous release, it will be upgraded automatically.

Setup...	Create or modify a configuration
Installation...	Install necessary product files to support a configuration

Figure 8-43 Communications Manager Setup

Step 4 Select and press the **Setup...** push-button.

The Open Configuration screen appears. Refer to Figure 8-44 on page 8-44.



Open Configuration

Either type in a name and description to create a new configuration or select a configuration from the list below. Select OK when finished.

Configuration: AMUL62PC

Description: AMU LU 6.2 Parallel Connection protocol

Directory: C:\CMLIB

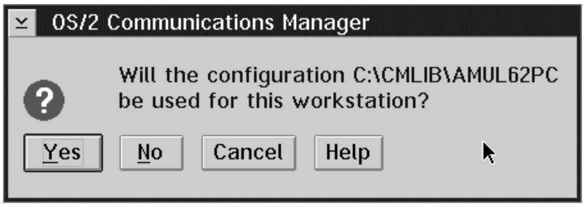
Directories: .., DLL, [A:], [C:], [D:], [E:]

Configurations: AMUL62PC

Figure 8-44 Open Configuration

Step 5 Either accept the configuration name that was given during software installation, or enter a new configuration name in the Configuration entry field.

The OS/2 Communication Icon Manager screen appears. See Figure 8-45.



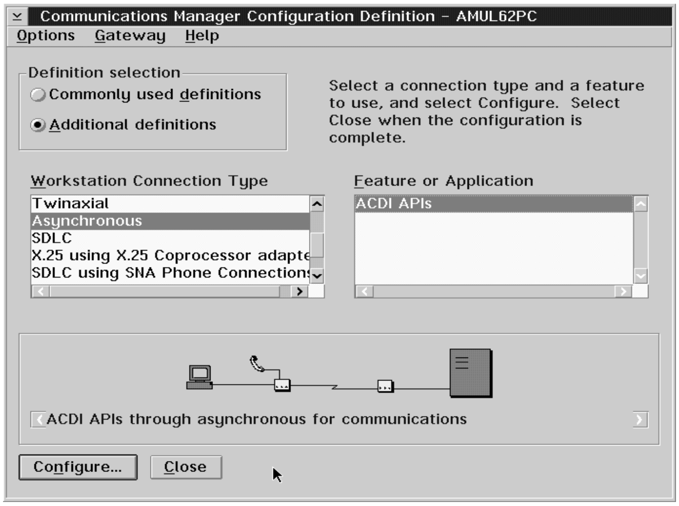
OS/2 Communications Manager

Will the configuration C:\CMLIB\AMUL62PC be used for this workstation?

Figure 8-45 OS/2 Communication Manager

Step 6 Select the **YES** push-button to use this configuration file for this workstation.

The Configuration Definition screen displays. Refer to Figure 8-46 on page 8-45.



Communications Manager Configuration Definition - AMUL62PC
Options Gateway Help
Definition selection
○ Commonly used definitions
● Additional definitions

Select a connection type and a feature to use, and select Configure. Select Close when the configuration is complete.

Workstation Connection Type
Twinaxial
Asynchronous
SDLC
X.25 using X.25 Coprocessor adapte
SDLC using SNA Phone Connection
Feature or Application
ACDI APIs

ACDI APIs through asynchronous for communications

Figure 8-46 Configuration Definition

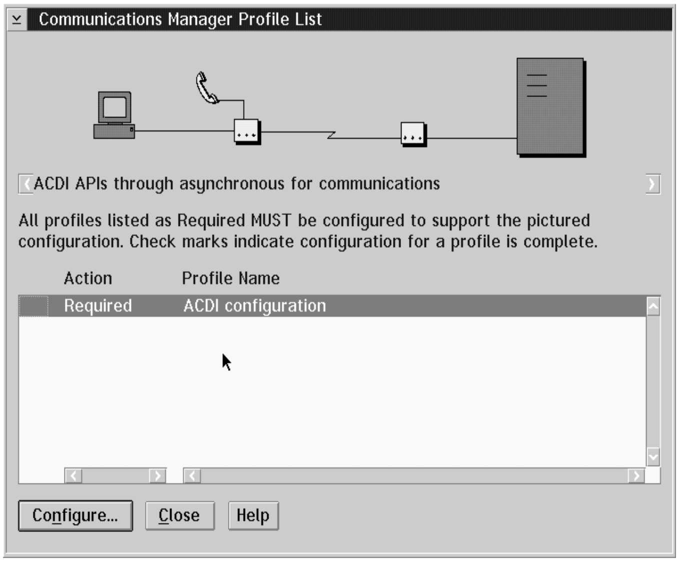
Step 7 Select the **Additional Definition** button in the Definition selection field in order to select all necessary workstation connection types and associated features.

Step 8 To configure modem support for DCAF, select and highlight:

- **Asynchronous** as the workstation connection type
- **ACDI APIs** as the feature or application

Press the **Configure...** push-button.

The Communication Manager Profile List displays. Refer to Figure 8-47 on page 8-46.



Communications Manager Profile List

ACDI APIs through asynchronous for communications

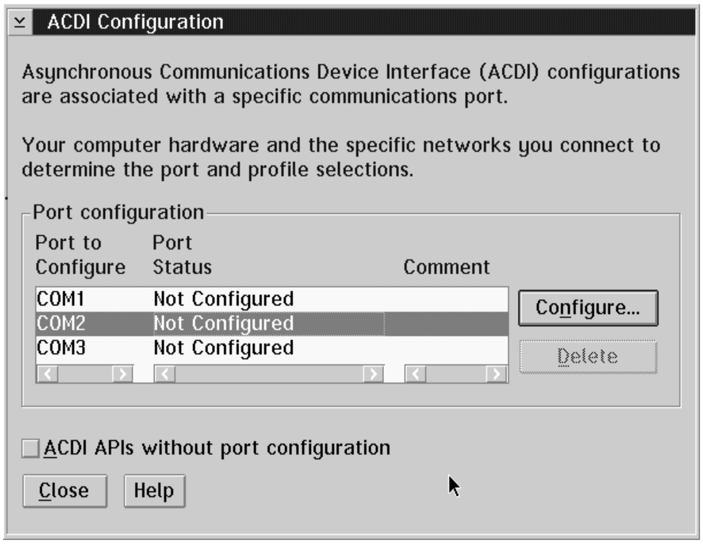
All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

Action	Profile Name
Required	ACDI configuration

Figure 8-47 Communications Manager Profile List

a. Select and highlight the **ACDI configuration** profile name and press the **Configure...** pushbutton.

The ACDI Configuration screen appears. See Figure 8-48.



ACDI Configuration

Asynchronous Communications Device Interface (ACDI) configurations are associated with a specific communications port.

Your computer hardware and the specific networks you connect to determine the port and profile selections.

Port configuration

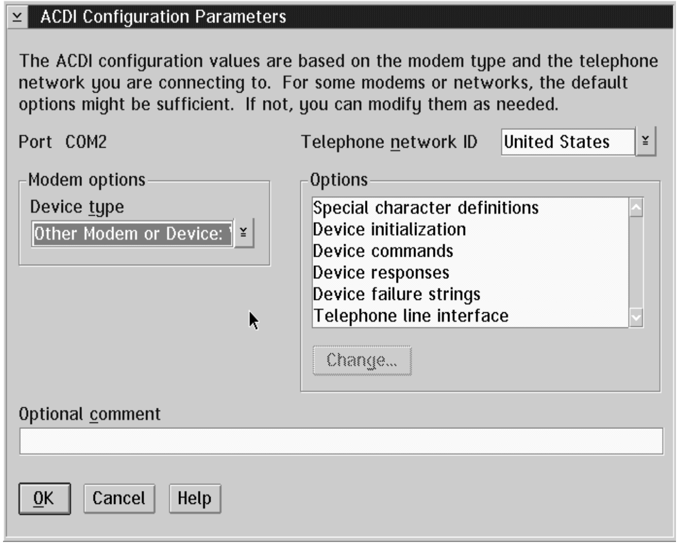
Port to Configure	Port Status	Comment
COM1	Not Configured	
COM2	Not Configured	
COM3	Not Configured	

☐ ACDI APIs without port configuration

Figure 8-48 ACDI Configuration

b. Select and highlight the appropriate COM port to which the modem is connected. Then select and press the **Configure...** push-button.

The ACDI Configuration Parameters screen is displayed. See Figure 8-49.



ACDI Configuration Parameters

The ACDI configuration values are based on the modem type and the telephone network you are connecting to. For some modems or networks, the default options might be sufficient. If not, you can modify them as needed.

Port COM2

Telephone network ID: United States

Modem options

Device type: Other Modem or Device:

Options

- Special character definitions
- Device initialization
- Device commands
- Device responses
- Device failure strings
- Telephone line interface

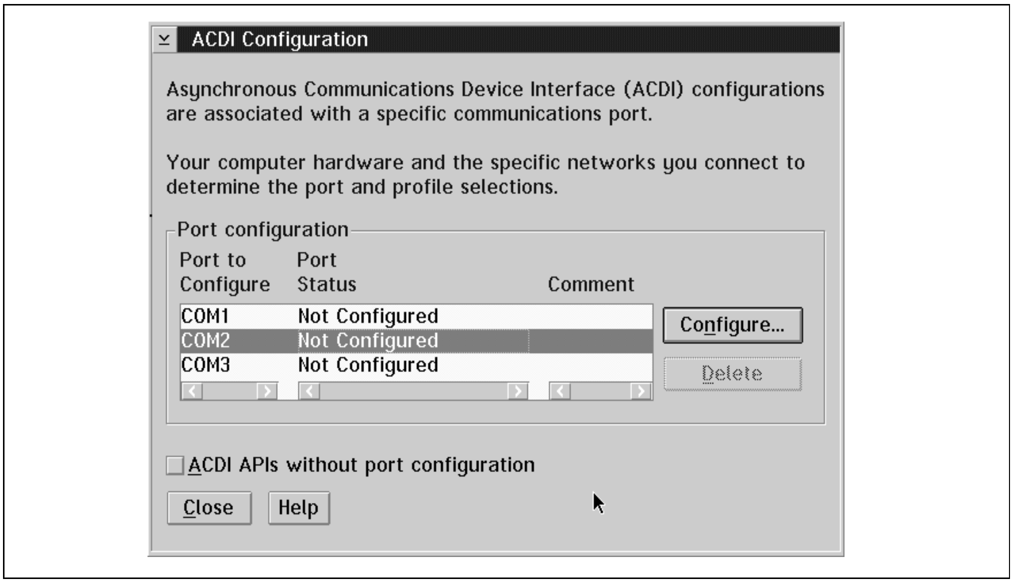
Optional comment

Figure 8-49 ACDI Configuration Parameters

c. Select the **Telephone network ID** United States (also in Europe) and modem **Device Type**. Enter an optional comment for this modem configuration and then select and press the **OK** push-button to continue.

d. Enter the device Initialization string in **Device Initialization** (e.g. for Boca Modem **AT&F0&Q0&C1&D0&K0M0**|)

The ADCI Configuration screen displays. Refer to Figure 8-50 on page 8-48.



ACDI Configuration

Asynchronous Communications Device Interface (ACDI) configurations are associated with a specific communications port.

Your computer hardware and the specific networks you connect to determine the port and profile selections.

Port configuration

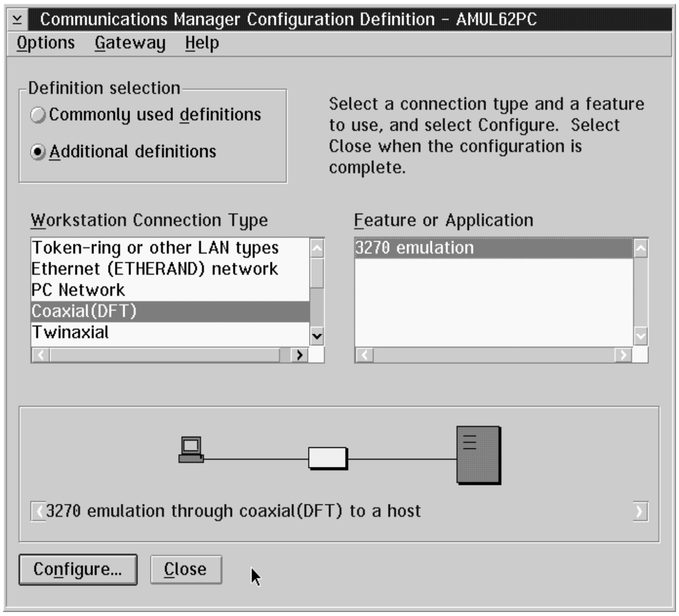
Port to Configure	Port Status	Comment
COM1	Not Configured	
COM2	Not Configured	
COM3	Not Configured	

Figure 8-50 ACDI Configuration

e. Select and press the **Close** push-button.

f. Select and press the **Close** push-button in the Communications Manager Profile List window.

The Configuration Definition screen appears. Refer to Figure 8-51 on page 8-49.



Communications Manager Configuration Definition - AMUL62PC

Options Gateway Help

Definition selection

○ Commonly used definitions

● Additional definitions

Select a connection type and a feature to use, and select Configure. Select Close when the configuration is complete.

Workstation Connection Type

- Token-ring or other LAN types
- Ethernet (ETHERAND) network
- PC Network
- Coaxial(DFT)
- Twinaxial

Feature or Application

- 3270 emulation

3270 emulation through coaxial(DFT) to a host

Figure 8-51 Communication Manager Configuration Definition

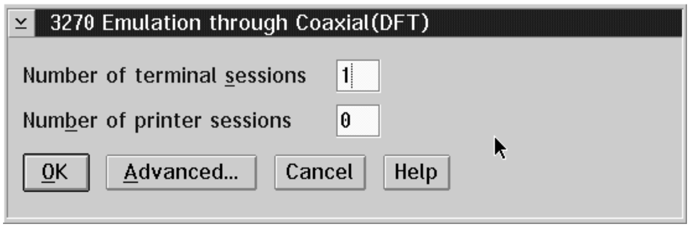
Step 9 To configure 3270 support for a coaxial (DFT) connection:

a. Select and highlight:

- **Coaxial (DFT)** as the workstation connection type
- **3270 emulation** as the feature or application

Press the **Configure...** push-button.

The 3270 Emulation through Coaxial (DFT) screen is displayed. See Figure 8-52.



3270 Emulation through Coaxial(DFT)

Number of terminal sessions 1

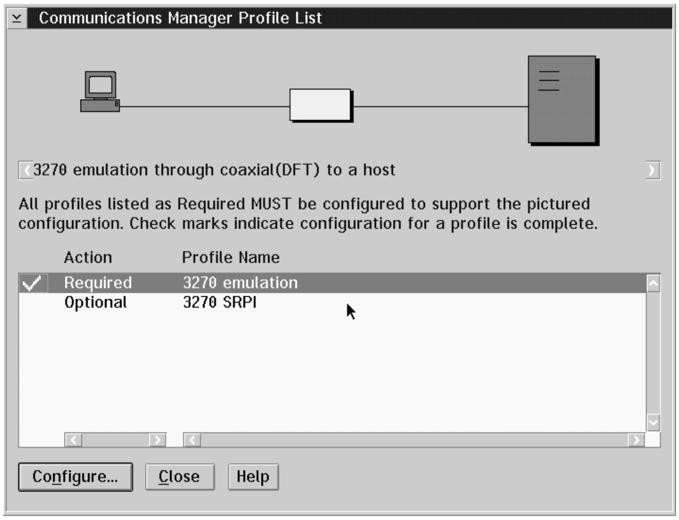
Number of printer sessions 0

Figure 8-52 3270 Emulation through Coaxial (DFT)

b. Enter the number of requested terminal sessions. (Default one session for AMU-Host datatransfer and one for diagnostic)
Set the number of printer sessions to **0**.

Select and press the **Advanced...** push-button.

The Communication Manager Profile List screen is displayed. See Figure 8-53.



3270 emulation through coaxial(DFT) to a host

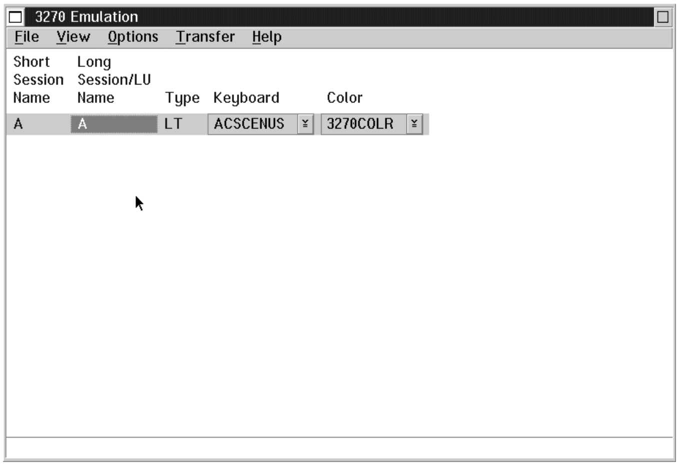
All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

	Action	Profile Name
✓	Required	3270 emulation
	Optional	3270 SRPI

Figure 8-53 Communication Manager Profile List

c. Select and highlight the **3270 emulation**. Select and press the **Configure...** push-button.

The 3270 Emulation screen appears. Refer to Figure 8-54 on page 8-51.

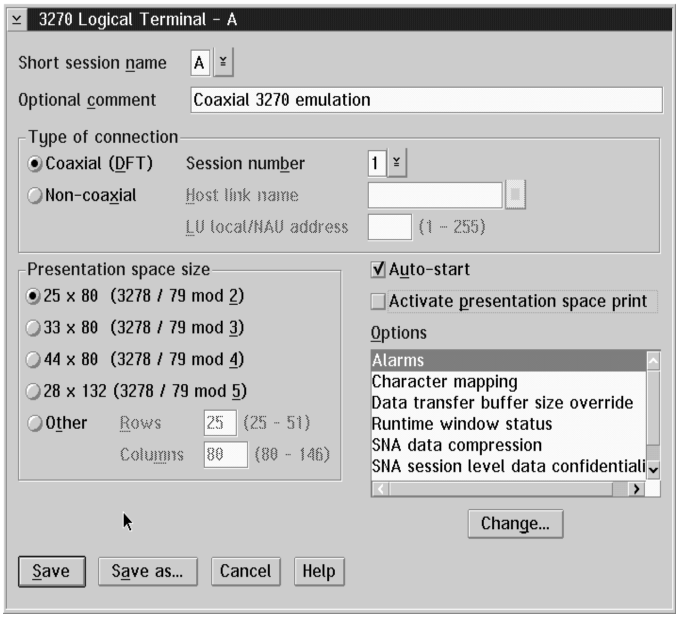


Short Session Name	Long Session/LU Name	Type	Keyboard	Color
A	A	LT	ACSCENUS	3270COLR

Figure 8-54 3270 Emulation

d. Select the first **Long Session/LU Name** and double click the left mouse button.

The 3270 logical Terminal screen displays. See Figure 8-55.



Short session name: A

Optional comment: Coaxial 3270 emulation

Type of connection
- ● Coaxial (DFT) Session number: 1
- ○ Non-coaxial Host link name:
- LU local/NAU address: (1 - 255)

Presentation space size
- ● 25 x 80 (3278 / 79 mod 2)
- ○ 33 x 80 (3278 / 79 mod 3)
- ○ 44 x 80 (3278 / 79 mod 4)
- ○ 28 x 132 (3278 / 79 mod 5)
- ○ Other Rows 25 (25 - 51) Columns 80 (80 - 146)

☑ Auto-start

☐ Activate presentation space print

Options
- Alarms
- Character mapping
- Data transfer buffer size override
- Runtime window status
- SNA data compression
- SNA session level data confidentiali

Figure 8-55 3270 Logical Terminal

e. Configure the 3270 sessions by:

- accepting the **Short session name** (refer to the session name in the AMU graphical Configuration EHLL communication)
- entering an optional comment to describe the host connection
- checking the **Coaxial (DFT)** connection type button
- accepting the **Session number**
- selecting the preferred **Presentation space size**
- checking the **Auto-start** checkbox
- unchecking the **Activate presentation space print** checkbox

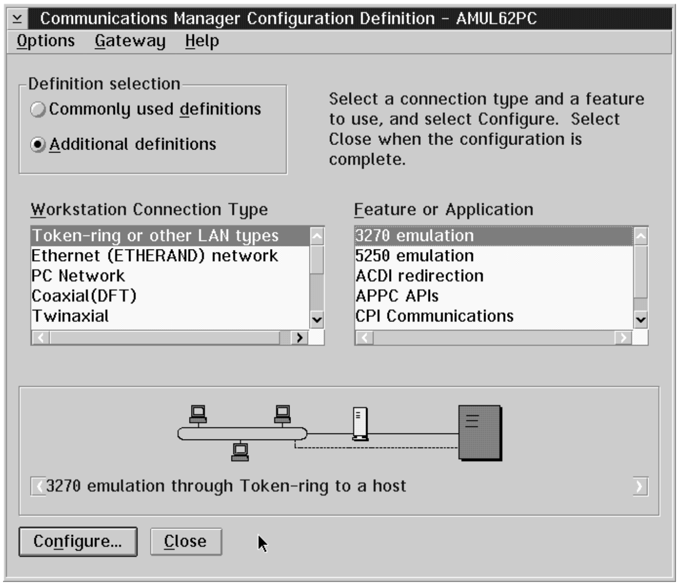
Select and press the **Save** push-button.

f. Repeat Step d and Step e for each additional 3270 session.

g. Close the **3270 Emulation** window.

h. Select and press the **Close** push-button in the Communications Manager Profile List window.

The Communication Manager Configuration Definition screen is displayed. Refer to Figure 8-56 on page 8-53.



Definition selection

○ Commonly used definitions

● Additional definitions

Select a connection type and a feature to use, and select Configure. Select Close when the configuration is complete.

Workstation Connection Type

- Token-ring or other LAN types
- Ethernet (ETHERAND) network
- PC Network
- Coaxial(DFT)
- Twinaxial

Feature or Application

- 3270 emulation
- 5250 emulation
- ACDI redirection
- APPC APIs
- CPI Communications

3270 emulation through Token-ring to a host

Figure 8-56 Communication Manager Configuration Definition

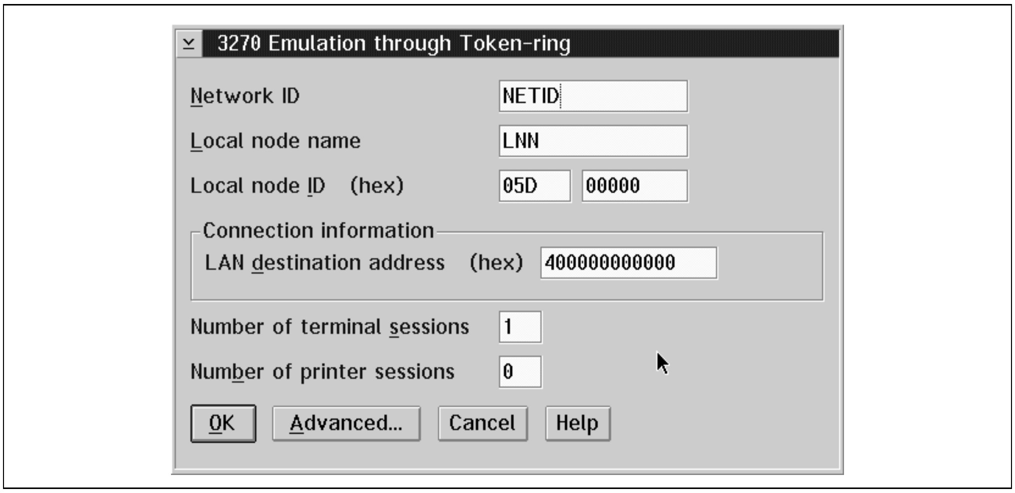
Step 10 To configure 3270 support for a Token-Ring connection:

a. Select and highlight:

- **Token-ring or other LAN types** as the workstation connection type
- **3270 emulation** as the feature or application

Press the **Configure...** push-button.

The Emulation Through 3270 Token - ring screen appears. Refer to Figure 8-57 on page 8-54.


3270 Emulation through Token-ring

Network ID: NETID

Local node name: LNN

Local node ID (hex): 05D 00000

Connection information

LAN destination address (hex): 400000000000

Number of terminal sessions: 1

Number of printer sessions: 0

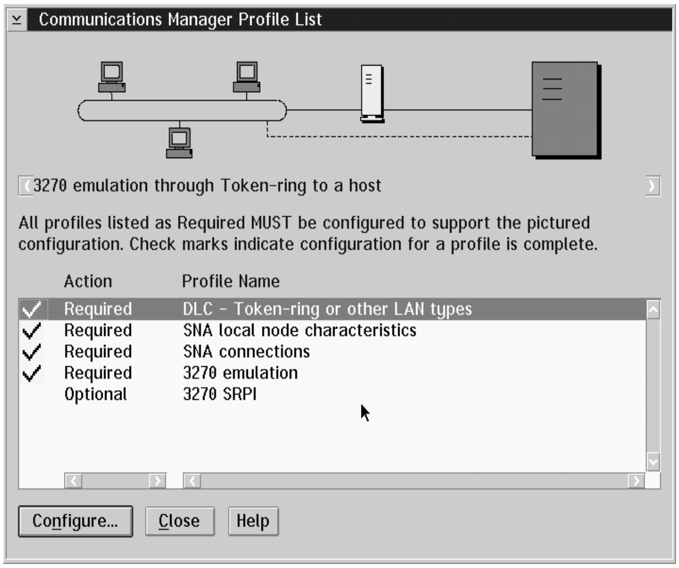
Figure 8-57 3270 Emulation through Token-ring

b. In the 3270 Emulation through Token-ring window:

- enter the **Network ID**; refer to Reference A, Table 8-2 on page 8-39
- enter the **Local node name**; refer to Reference 1, Table 8-3 on page 8-40
- enter the **Local node ID (hex)**,; 05D xxxxx, where xxxxx may be any valid number not already defined
- enter the **LAN destination address**; refer to Reference B, Table 8-2 on page 8-39
- enter the requested number of terminal sessions
- set the number of printer sessions to **0**

Select and press the **Advanced...** push-button.

The Communication Manager Profile List screen is displayed. Refer to Figure 8-58 on page 8-55.



3270 emulation through Token-ring to a host

All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

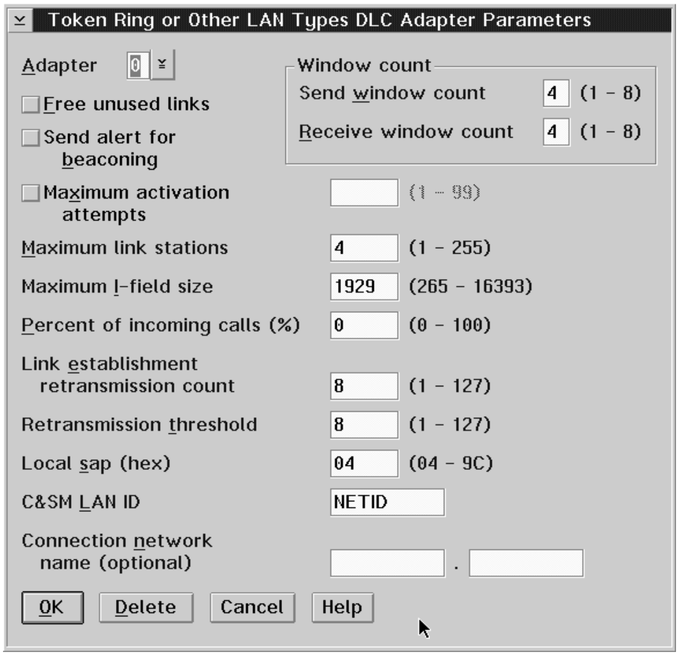
	Action	Profile Name
✓	Required	DLC - Token-ring or other LAN types
✓	Required	SNA local node characteristics
✓	Required	SNA connections
✓	Required	3270 emulation
	Optional	3270 SRPI

Figure 8-58 Communications Manager Profile List

c. Select and highlight the **DLC - Token-ring or other LAN types** profile name.

Select and press the **Configure...** push-button.

The Token - Ring or Other LAN Type DIC Adapter Parameter screen appears. Refer to Figure 8-59 on page 8-56.



Token Ring or Other LAN Types DLC Adapter Parameters

Adapter 0

☐ Free unused links

☐ Send alert for beaconing

Window count

Send window count 4 (1 - 8)

Receive window count 4 (1 - 8)

☐ Maximum activation attempts (1 - 99)

Maximum link stations 4 (1 - 255)

Maximum I-field size 1929 (265 - 16393)

Percent of incoming calls (%) 0 (0 - 100)

Link establishment retransmission count 8 (1 - 127)

Retransmission threshold 8 (1 - 127)

Local sap (hex) 04 (04 - 9C)

C&SM LAN ID NETID

Connection network name (optional) .

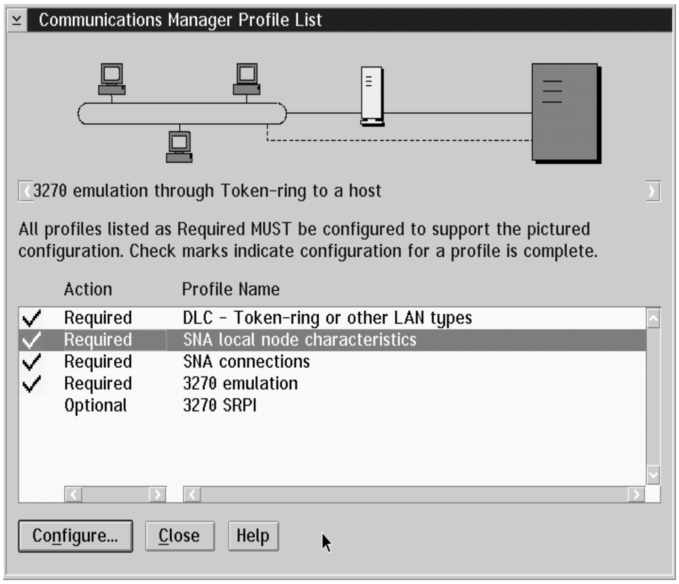
Figure 8-59 Token-Ring or Other LAN Types DLC Adapter Parameters

d. In the Token-Ring or Other LAN Types DLC Adapter Parameters window:

- make sure the **Adapter** selection specifies the correct LAN adapter card
- enter the network ID in the C&SM LAN ID field; refer to Reference A, Table 8-2 on page 8-39
- accept all other default parameters

Select and press the **OK** push-button.

The Communication Manager Profile List screen is displayed. Refer to Figure 8-60 on page 8-57.



3270 emulation through Token-ring to a host

All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

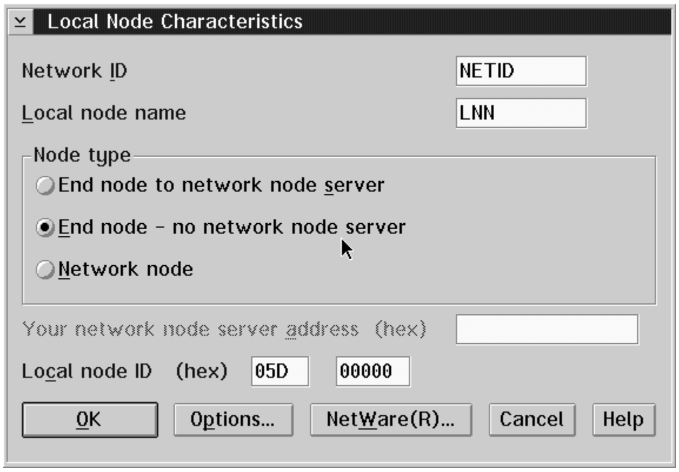
	Action	Profile Name
✓	Required	DLC - Token-ring or other LAN types
✓	Required	SNA local node characteristics
✓	Required	SNA connections
✓	Required	3270 emulation
	Optional	3270 SRPI

Figure 8-60 Communications Manager Profile List

e. Select and highlight the **SNA local node characteristics** profile name.

Select and press the **Configure...** push-button.

The Local Node Characteristics screen appears. See Figure 8-61.



Network ID: NETID

Local node name: LNN

Node type

○ End node to network node server

● End node - no network node server

○ Network node

Your network node server address (hex):

Local node ID (hex): 05D 00000

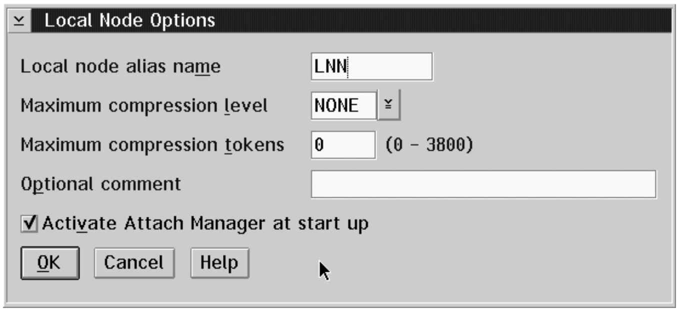
Figure 8-61 Local Node Characteristics

f. In the Local Node Characteristics window:

- enter the **Network ID**; refer to Reference A, Table 8-2 on page 8-39
- enter the **Local node name**; refer to Reference 1, Table 8-3 on page 8-40
- check the **End node - no network node server** button
- enter the **Local node ID (hex)**; 05D xxxxx, where xxxxx is any valid number not already defined for another node on the network

Select and press the **Options...** push-button.

The Local Node Options screen displays. See Figure 8-62.



Local Node Options

Local node alias name: LNN

Maximum compression level: NONE

Maximum compression tokens: 0 (0 - 3800)

Optional comment:

☑ Activate Attach Manager at start up

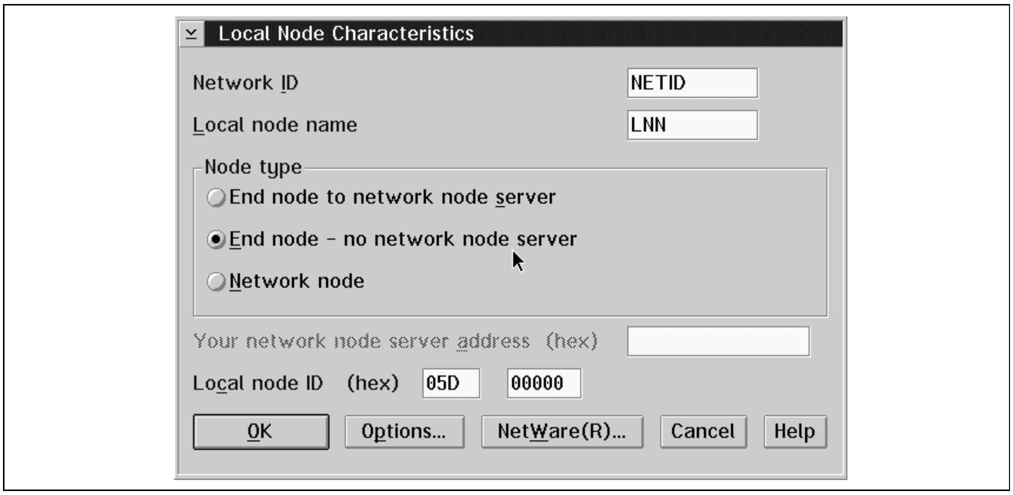
Figure 8-62 Local Node Options

g. In the Local Node Options window:

- enter the local node name in the **Local node alias name** entry field; refer to Reference A, Table 8-2 on page 8-39
- select **NONE** as the maximum compression level
- enter **0** as the maximum compression tokens
- enter an optional comment for the local node
- check the **Activate Attach Manager at start up** checkbox

Select and press the **OK** push-button.

The Local Node Characteristics screen appears. See Figure 8-63.



Local Node Characteristics

Network ID NETID

Local node name LNN

Node type

○ End node to network node server

● End node - no network node server

○ Network node

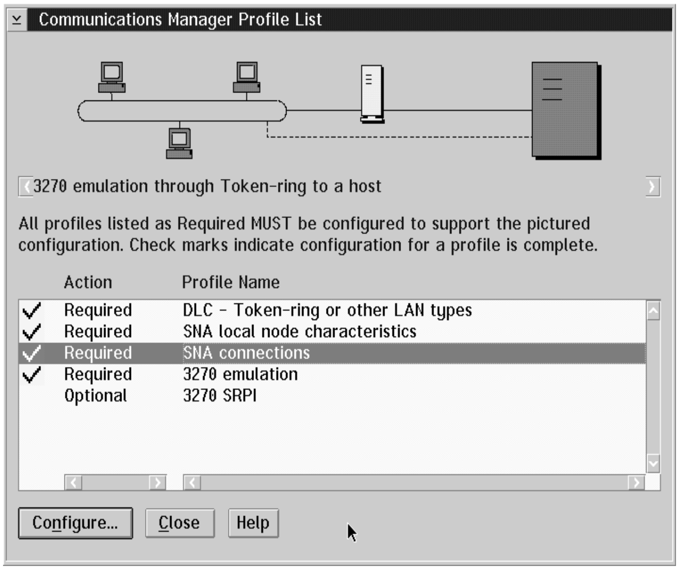
Your network node server address (hex)

Local node ID (hex) 05D 00000

Figure 8-63 Local Node Characteristics

h. Select and press the **OK** push-button.

The Communication Manager Profile List screen displays. Refer to Figure 8-64 on page 8-60.



3270 emulation through Token-ring to a host

All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

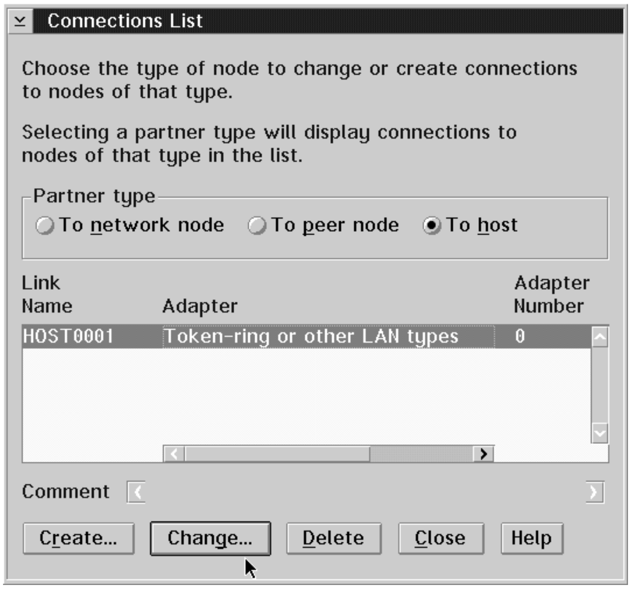
	Action	Profile Name
✓	Required	DLC - Token-ring or other LAN types
✓	Required	SNA local node characteristics
✓	Required	SNA connections
✓	Required	3270 emulation
	Optional	3270 SRPI

Figure 8-64 Communications Manager Profile List

i. Select and highlight the **SNA connections** profile name.

Select and press the **Configure...** push-button.

The Connections List screen appears. Refer to Figure 8-65 on page 8-61.



Choose the type of node to change or create connections to nodes of that type.

Selecting a partner type will display connections to nodes of that type in the list.

Partner type

○ To network node ○ To peer node ● To host

Link Name	Adapter	Adapter Number
HOST0001	Token-ring or other LAN types	0

Comment

Figure 8-65 Connections List

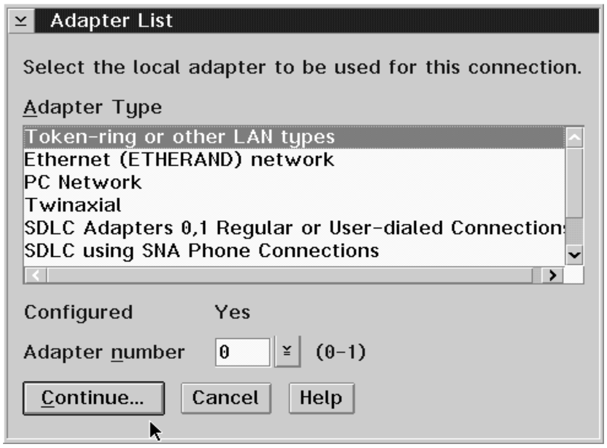
j. Check the **To host** button.

Select and press either the **Create...** or **Change...** push-button, depending on whether a link to the host needs to be created or added, or whether an existing link (selected and highlighted) needs parameter updates or changes.

The Adapter List screen is displayed. Refer to Figure 8-66 on page 8-62.

Note

If configuring the host connection for the first time, delete any existing lists and create a new link.



Select the local adapter to be used for this connection.

Adapter Type

- Token-ring or other LAN types
- Ethernet (ETHERAND) network
- PC Network
- Twinaxial
- SDLC Adapters 0,1 Regular or User-dialed Connection
- SDLC using SNA Phone Connections

Configured Yes

Adapter number 0 (0-1)

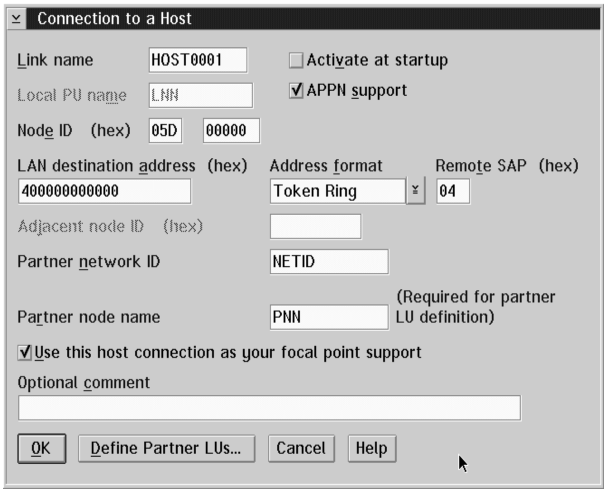
Figure 8-66 Adapter List

k. In the Adapter List window:

- select and highlight the **Token-ring or other LAN types** adapter type
- select the appropriate **Adapter number**

Select and press the **Continue...** push-button.

The Connection to a Host screen displays. See Figure 8-67.



Link name HOST0001

☐ Activate at startup

Local PU name LNN

☑ APPN support

Node ID (hex) 05D 00000

LAN destination address (hex) 400000000000

Address format Token Ring

Remote SAP (hex) 04

Adjacent node ID (hex)

Partner network ID NETID

Partner node name PNN (Required for partner LU definition)

☑ Use this host connection as your focal point support

Optional comment

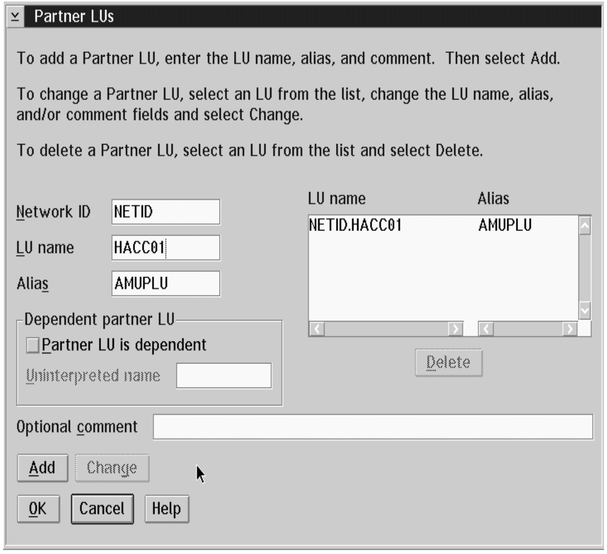
Figure 8-67 Connection to a Host

l. In the Connection to a Host window:

- enter your preferred link name
- enter the **Node ID (hex)**; 05D xxxxx, where xxxxx is any valid number not already defined for another node on the network
- enter the **LAN destination address (hex)**; refer to Reference B, Table 8-2 on page 8-39
- enter the **Partner network ID**; refer to Reference A, Table 8-2 on page 8-39
- enter the **Partner node name**; refer to Reference 2, Table 8-3 on page 8-40
- check the **Use this host connection as your focal point support** checkbox
- uncheck the **Activate at startup** checkbox
- accept all other defaults and enter an optional comment to describe this partner connection

Select and press the **Define Partner LUs...** push-button.

The Partner LUs screen appears. See Figure 8-68.



Partner LUs

To add a Partner LU, enter the LU name, alias, and comment. Then select Add.

To change a Partner LU, select an LU from the list, change the LU name, alias, and/or comment fields and select Change.

To delete a Partner LU, select an LU from the list and select Delete.

Network ID: NETID

LU name: HACC01

Alias: AMUPLU

Dependent partner LU

☐ Partner LU is dependent

Uninterpreted name:

LU name	Alias
NETID.HACC01	AMUPLU

Optional comment:

Figure 8-68 Partner LUs

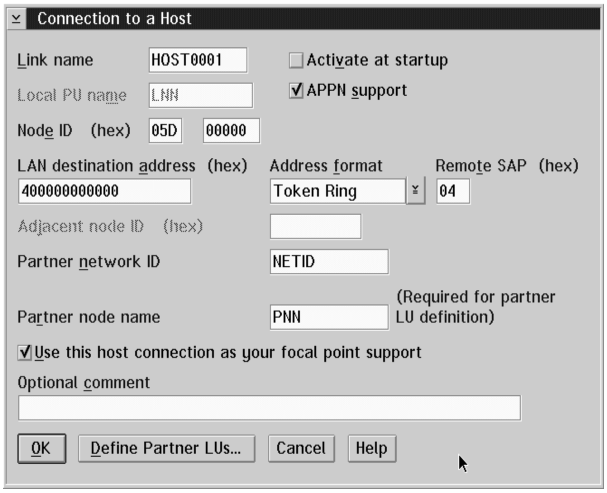
m. In the Partner LUs window:

- enter the partner **Network ID**; refer to Reference A, refer to Table 8-2 on page 8-39
- enter the partner **LU name**
- enter the partner **Alias**
- uncheck the **Partner LU is dependent** checkbox
- enter an optional comment to describe the partner connection

Select and press the **Add** push-button.

Select and press the **OK** push-button.

The Connection to a Host screen displays. See Figure 8-69.



Connection to a Host

Link name HOST0001

☐ Activate at startup

Local PU name LNN

☑ APPN support

Node ID (hex) 05D 00000

LAN destination address (hex) 400000000000

Address format Token Ring

Remote SAP (hex) 04

Adjacent node ID (hex)

Partner network ID NETID

Partner node name PNN (Required for partner LU definition)

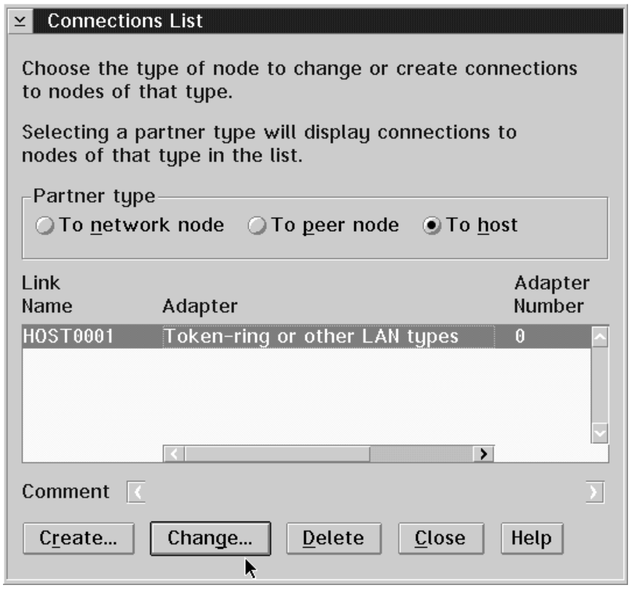
☑ Use this host connection as your focal point support

Optional comment

Figure 8-69 Connection to a Host

n. Select and press the **OK** push-button.

The Connections List screen is displayed. Refer to Figure 8-70 on page 8-65.



Connections List

Choose the type of node to change or create connections to nodes of that type.

Selecting a partner type will display connections to nodes of that type in the list.

Partner type

○ To network node ○ To peer node ● To host

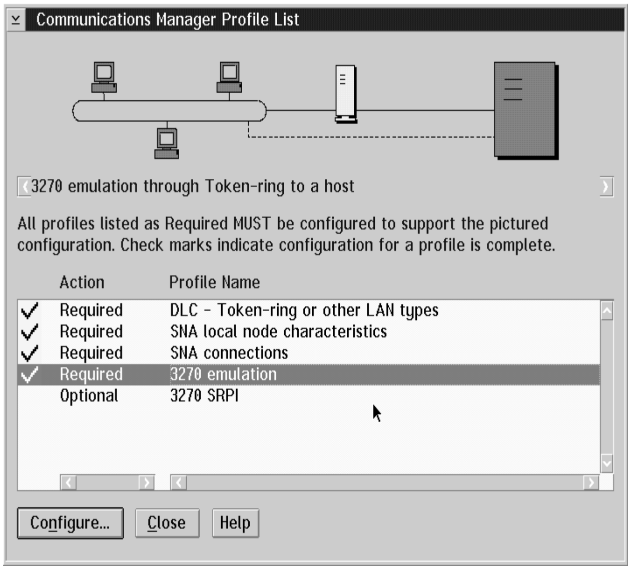
Link Name	Adapter	Adapter Number
HOST0001	Token-ring or other LAN types	0

Comment

Figure 8-70 Connections List

o. Select and press the **Close** push-button.

The Communication Manager Profile List appears. See Figure 8-71.



Communications Manager Profile List

3270 emulation through Token-ring to a host

All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

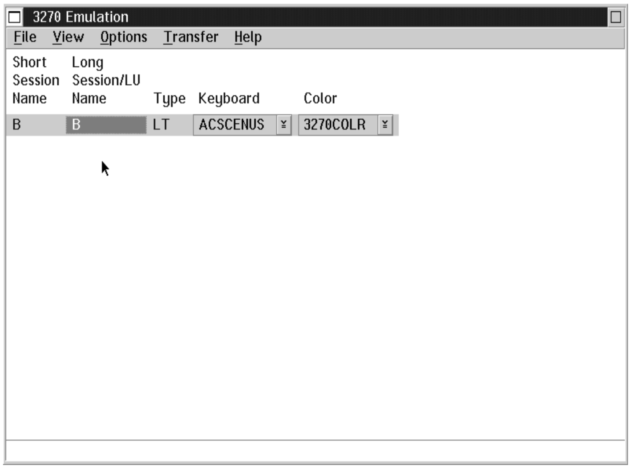
	Action	Profile Name
✓	Required	DLC - Token-ring or other LAN types
✓	Required	SNA local node characteristics
✓	Required	SNA connections
✓	Required	3270 emulation
	Optional	3270 SRPI

Figure 8-71 Communications Manager Profile List

p. Select and highlight the **3270 emulation** profile name.

Select and press the **Configure...** push-button.

The 3270 Emulation screen is displayed. See Figure 8-72.

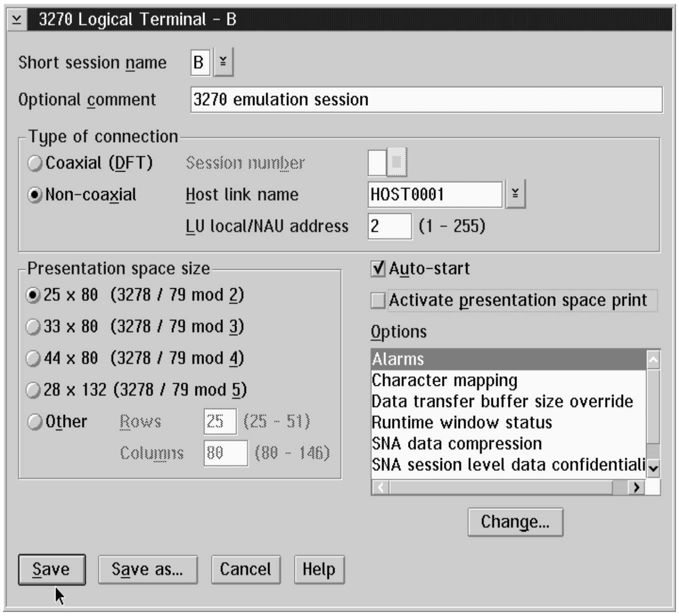


Short Session Name	Long Session/LU Name	Type	Keyboard	Color
B	B	LT	ACSCENUS	3270COLR

Figure 8-72 3270 Emulation

q. Select the first **Long Session/LU Name** and double click the left mouse button.

The 3270 Logical terminal screen is displayed. Refer to Figure 8-73 on page 8-67.



3270 Logical Terminal - B

Short session name: B

Optional comment: 3270 emulation session

Type of connection

○ Coaxial (DFT) Session number

● Non-coaxial Host link name: HOST0001

LU local/NAU address: 2 (1 - 255)

Presentation space size

● 25 x 80 (3278 / 79 mod 2)

○ 33 x 80 (3278 / 79 mod 3)

○ 44 x 80 (3278 / 79 mod 4)

○ 28 x 132 (3278 / 79 mod 5)

○ Other Rows 25 (25 - 51) Columns 80 (80 - 146)

☑ Auto-start

☐ Activate presentation space print

Options

- Alarms
- Character mapping
- Data transfer buffer size override
- Runtime window status
- SNA data compression
- SNA session level data confidentiali

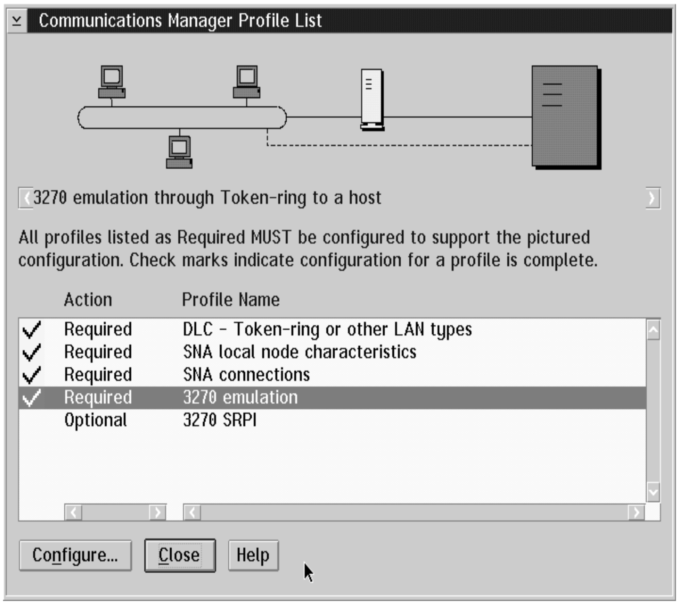
Figure 8-73 3270 Logical Terminal

r. Configure the 3270 sessions by:

- accepting the **Short session name**
- entering an optional comment to describe the host connection
- checking the **Non-coaxial** connection type button
- selecting the previously configured **Host link name**
- entering the **LU local/NAU address**; refer to Reference 4, Table 8-3 on page 8-40
- selecting the preferred **Presentation space size**
- checking the **Auto-start** checkbox
- unchecking the **Activate presentation space print** checkbox

Select and press the **Save** push-button.

The Communication Manager Profile List screens appears. See Figure 8-74 on page 8-68.



3270 emulation through Token-ring to a host

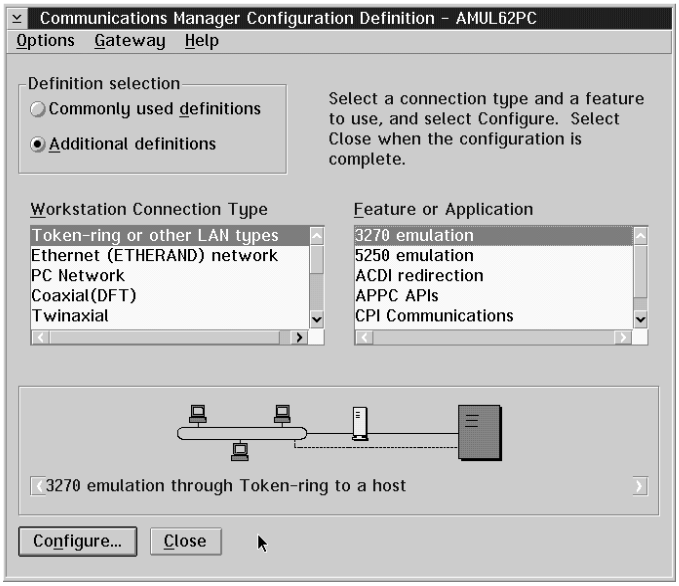
All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

	Action	Profile Name
✓	Required	DLC - Token-ring or other LAN types
✓	Required	SNA local node characteristics
✓	Required	SNA connections
✓	Required	3270 emulation
	Optional	3270 SRPI

Figure 8-74 Communications Manager Profile List

s. Select and press the **Close** push-button.

The Communication Manager Configuration Definition screens displays. Refer to Figure 8-75 on page 8-69.



Definition selection

○ Commonly used definitions

● Additional definitions

Select a connection type and a feature to use, and select Configure. Select Close when the configuration is complete.

Workstation Connection Type

- Token-ring or other LAN types
- Ethernet (ETHERAND) network
- PC Network
- Coaxial(DFT)
- Twinaxial

Feature or Application

- 3270 emulation
- 5250 emulation
- ACDI redirection
- APPC APIs
- CPI Communications

3270 emulation through Token-ring to a host

Figure 8-75 Communication Manager Configuration Definition

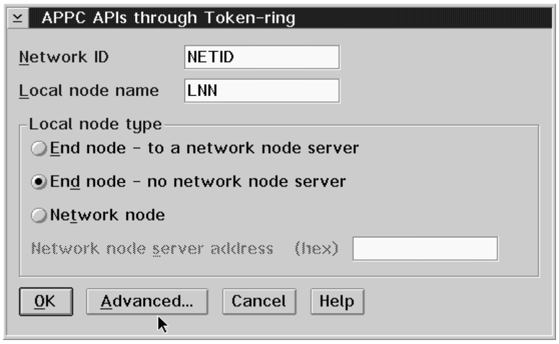
Step 11 To configure LU 6.2 APPC communication for serial and parallel sessions:

a. Select and highlight:

- **Token-ring or other LAN types** as the workstation connection type
- **APPC APIs** as the feature or application

Press the **Configure...** push-button.

The APPC APIs through Token - ring screen appears. Refer to Figure 8-76 on page 8-70.



Network ID: NETID

Local node name: LNN

Local node type
- ○ End node - to a network node server
- ● End node - no network node server
- ○ Network node

Network node server address (hex):

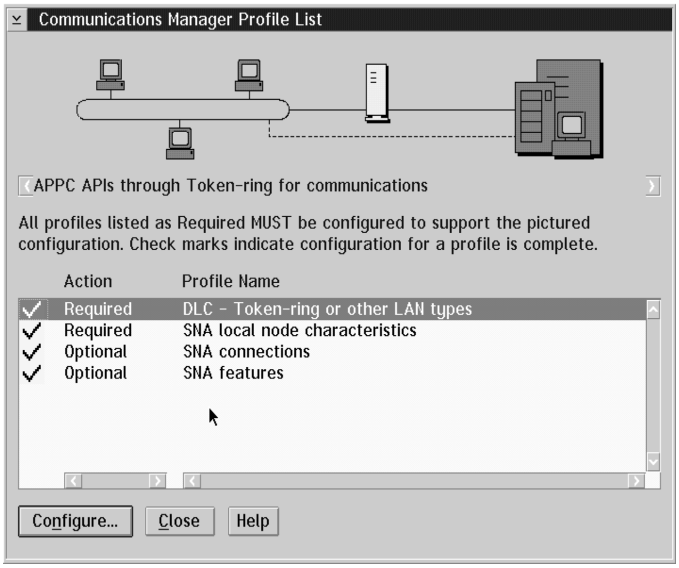
Figure 8-76 APPC APIs through Token-ring

b. In the APPC APIs through Token-ring window:

- enter the **Network ID**; refer to Reference A, Table 8-2 on page 8-39
- enter the **Local node name**; refer to Reference 1, Table 8-3 on page 8-40
- select the **End node - no network node server** button

Select and press the **Advanced...** push-button

The Communication Manager Profile List screen is displayed. Refer to Figure 8-77 on page 8-71.


Communications Manager Profile List

APPC APIs through Token-ring for communications

All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

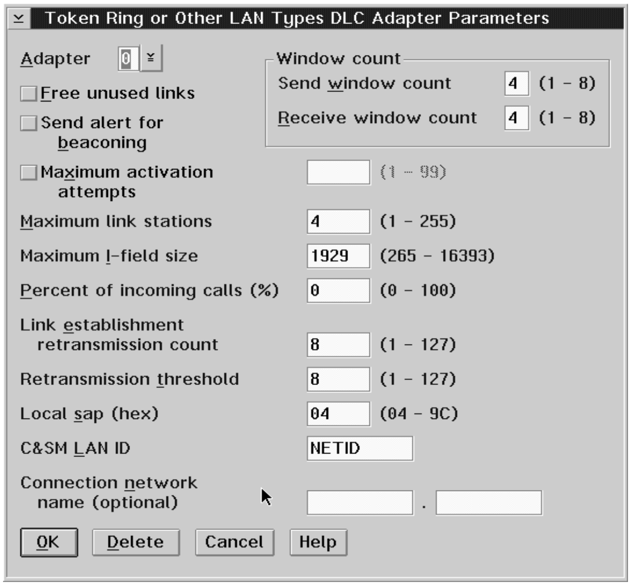
	Action	Profile Name
✓	Required	DLC - Token-ring or other LAN types
✓	Required	SNA local node characteristics
✓	Optional	SNA connections
✓	Optional	SNA features

Figure 8-77 Communications Manager Profile List

c. Select and highlight the **DLC - Token-ring or other LAN types** profile name.

Select and press the **Configure...** push-button.

The Token - Ring or Other LAN Types DIC Adapter Parameters screen appears. Refer to Figure 8-78 on page 8-72.



Adapter 0

☐ Free unused links

☐ Send alert for beaconing

☐ Maximum activation attempts (1 - 99)

Window count

Send window count 4 (1 - 8)

Receive window count 4 (1 - 8)

Maximum link stations 4 (1 - 255)

Maximum I-field size 1929 (265 - 16393)

Percent of incoming calls (%) 0 (0 - 100)

Link establishment retransmission count 8 (1 - 127)

Retransmission threshold 8 (1 - 127)

Local sap (hex) 04 (04 - 9C)

C&SM LAN ID NETID

Connection network name (optional) .

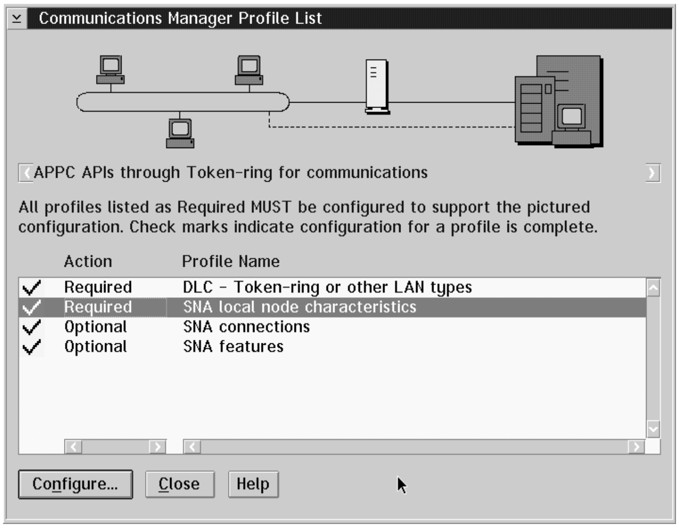
Figure 8-78 Token-Ring or Other LAN Types DLC Adapter Parameters

d. In the Token-Ring or Other LAN Types DLC Adapter Parameters window:

- make sure the **Adapter** selection specifies the correct LAN adapter card,
- enter the network ID in the **C&SM LAN ID** field; refer to Reference A, Table 8-2 on page 8-39
- accept all other default parameters.

Select and press the **OK** push-button.

The Communication Manager Profile List is displayed. Refer to Figure 8-79 on page 8-73.



Communications Manager Profile List

APPC APIs through Token-ring for communications

All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

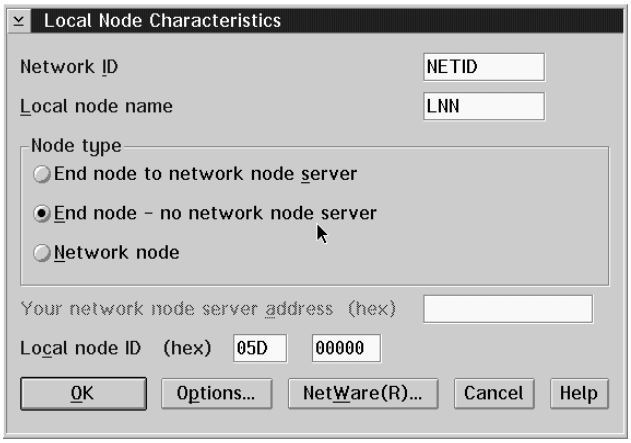
	Action	Profile Name
✓	Required	DLC - Token-ring or other LAN types
✓	Required	SNA local node characteristics
✓	Optional	SNA connections
✓	Optional	SNA features

Figure 8-79 Communications Manager Profile List

e. Select and highlight the **SNA local node characteristics** profile name.

Select and press the **Configure...** push-button.

The Local Node Characteristics screen displays. See Figure 8-80.



Local Node Characteristics

Network ID: NETID

Local node name: LNN

Node type

○ End node to network node server

● End node - no network node server

○ Network node

Your network node server address (hex):

Local node ID (hex): 05D 00000

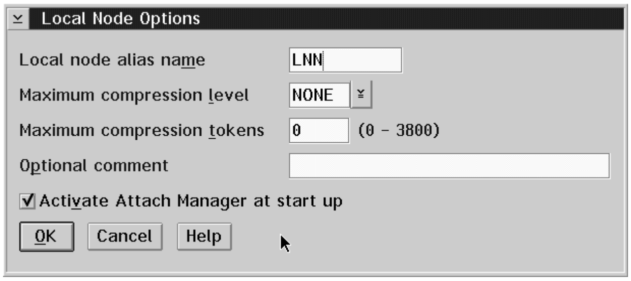
Figure 8-80 Local Node Characteristics

f. In the Local Node Characteristics window:

- enter the **Network ID**; refer to Reference A, Table 8-2 on page 8-39
- enter the **Local node name**; refer to Reference 1, Table 8-3 on page 8-40
- check the **End node - no network node server** button
- enter the **Local node ID (hex)**; 05D xxxxx, where xxxxx is any valid number not already defined for another node on the network

Select and press the **Options...** push-button.

The Local Node Options screen appears. See Figure 8-81.



Local Node Options

Local node alias name: LNN

Maximum compression level: NONE

Maximum compression tokens: 0 (0 - 3800)

Optional comment:

☑ Activate Attach Manager at start up

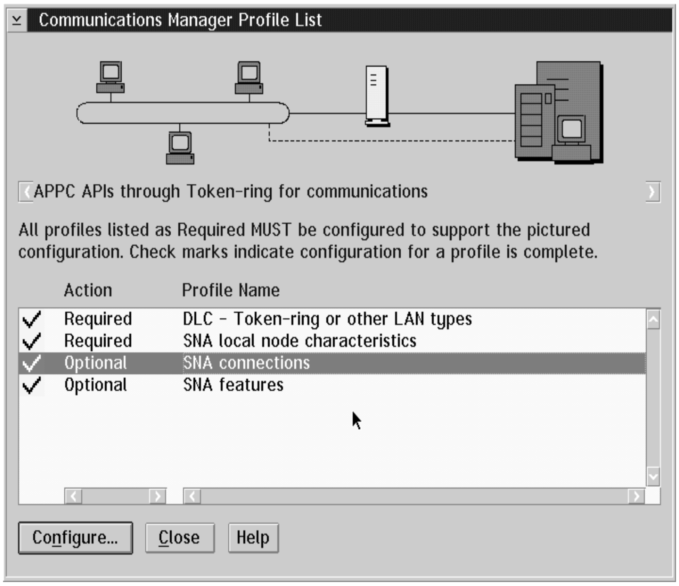
Figure 8-81 Local Node Options

g. In the Local Node Options window:

- enter the local node name in the **Local node alias name** entry field; refer to Reference 1, Table 8-3 on page 8-40
- select **NONE** as the maximum compression level
- enter **0** as the maximum compression tokens
- enter an optional comment for the local node
- check the **Activate Attach Manager at start up** checkbox

Select and press the **OK** push-button.

The Communication manager profile List screen displays. See Figure 8-82.



APPC APIs through Token-ring for communications

All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

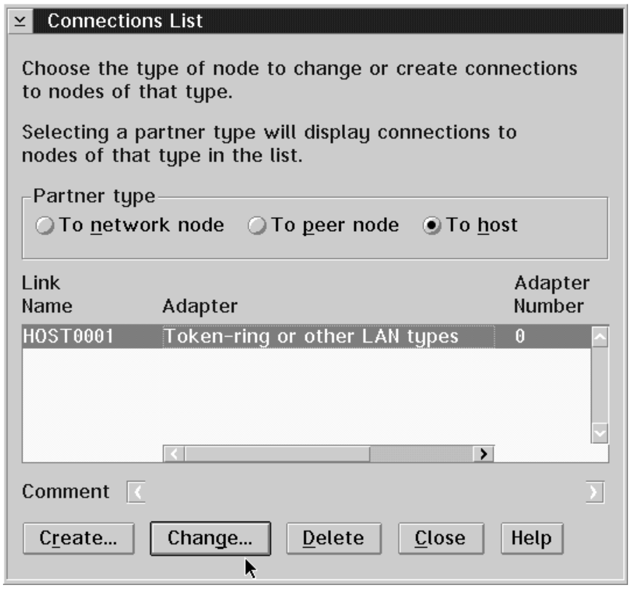
	Action	Profile Name
✓	Required	DLC - Token-ring or other LAN types
✓	Required	SNA local node characteristics
✓	Optional	SNA connections
✓	Optional	SNA features

Figure 8-82 Communications Manager Profile List

h. Select and highlight the **SNA connections** profile name.

Select and press the **Configure...** push-button.

The Connections List screen is displayed. Refer to Figure 8-83 on page 8-76.



Choose the type of node to change or create connections to nodes of that type.

Selecting a partner type will display connections to nodes of that type in the list.

Partner type

○ To network node ○ To peer node ● To host

Link Name	Adapter	Adapter Number
HOST0001	Token-ring or other LAN types	0

Figure 8-83 Connections List

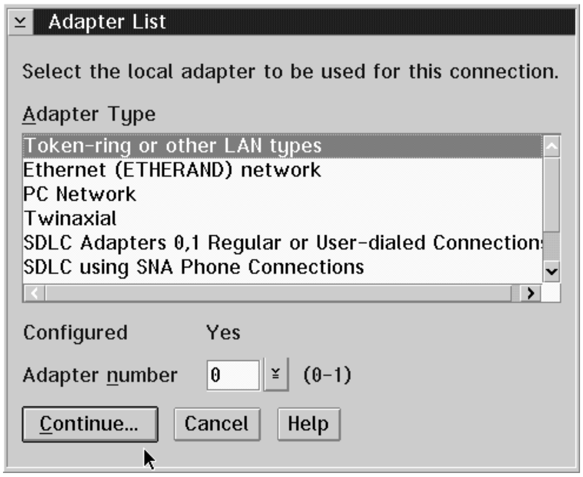
i. Check the **To host** button.

Select and press either the **Create...** or **Change...** push-button, depending on whether a link to the host needs to be created or added, or whether an existing link (selected and highlighted) needs parameter updates or changes.

The Adapter List screen displays. Refer to Figure 8-84 on page 8-77.

☞ **Note**

If configuring the host connection for the first time, delete any existing lists and create a new link.



Select the local adapter to be used for this connection.

Adapter Type

- Token-ring or other LAN types
- Ethernet (ETHERAND) network
- PC Network
- Twinaxial
- SDLC Adapters 0,1 Regular or User-dialed Connection
- SDLC using SNA Phone Connections

Configured Yes

Adapter number 0 (0-1)

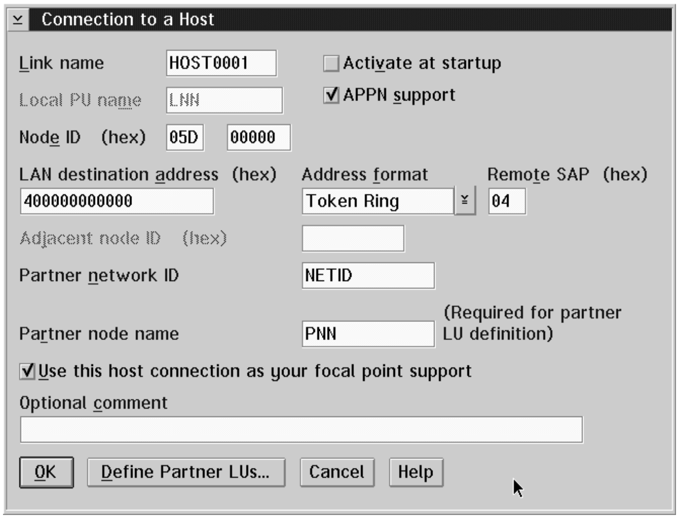
Figure 8-84 Adapter List

j. In the Adapter List window:

- select and highlight the **Token-ring or other LAN types** adapter type
- select the appropriate **Adapter number**

Select and press the **Continue...** push-button.

The Connection to a Host screen appears. Refer to Figure 8-85 on page 8-78.



Link name HOST0001

☐ Activate at startup

Local PU name LNN

☑ APPN support

Node ID (hex) 05D 00000

LAN destination address (hex) 400000000000

Address format Token Ring

Remote SAP (hex) 04

Adjacent node ID (hex)

Partner network ID NETID

Partner node name PNN (Required for partner LU definition)

☑ Use this host connection as your focal point support

Optional comment

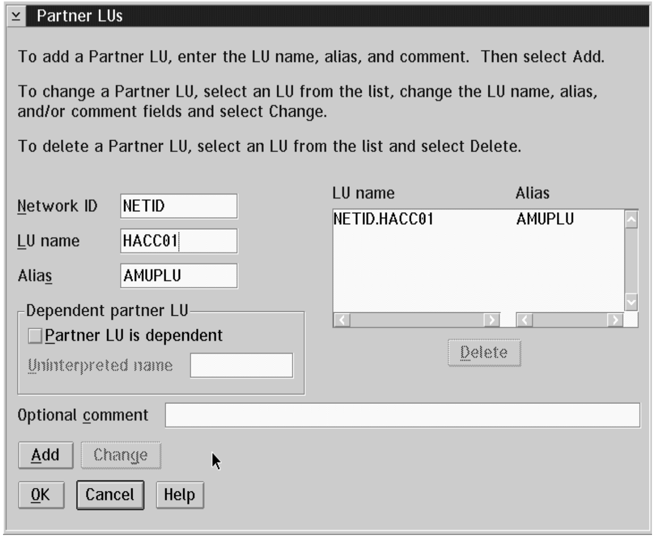
Figure 8-85 Connection to a Host

k. In the Connection to a Host window,

- enter your preferredL**ink name**
- enter the N**ode ID (hex)**; 05D xxxxx, where xxxxx is any valid number not already defined for another node on the network
- enter the **LAN destination address (hex)**; refer to Reference B, Table 8-2 on page 8-39
- enter the **Partner network ID**; refer to Reference A, Table 8-2 on page 8-39
- enter the **Partner node name**; refer to Reference 2, Table 8-3 on page 8-40
- check the **Use this host connection as your focal point support** checkbox
- uncheck the **Activate at startup** checkbox
- accept all other defaults and enter an optional comment to describe this partner connection

Select and press the **Define Partner LUs...** push-button.

The Partner LUs screen appears. Refer to Figure 8-86 on page 8-79.



To add a Partner LU, enter the LU name, alias, and comment. Then select Add.

To change a Partner LU, select an LU from the list, change the LU name, alias, and/or comment fields and select Change.

To delete a Partner LU, select an LU from the list and select Delete.

Network ID: NETID

LU name: HACC01

Alias: AMUPLU

Dependent partner LU

☐ Partner LU is dependent

Uninterpreted name:

LU name	Alias
NETID.HACC01	AMUPLU

Optional comment:

Figure 8-86 Partner LUs

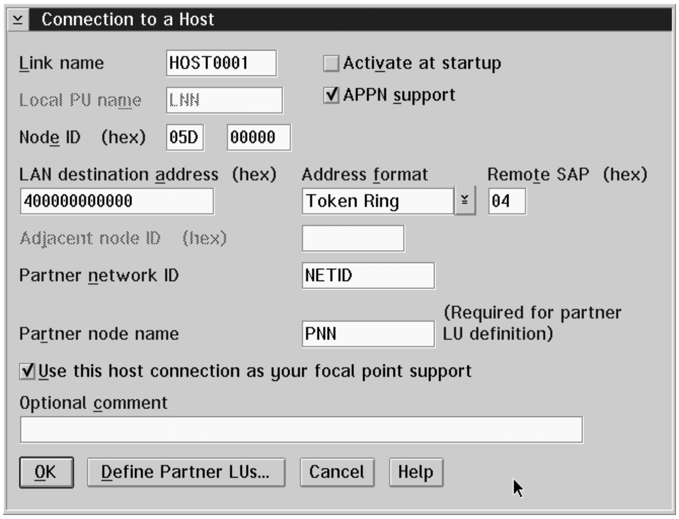
l. In the Partner LUs window:

- enter the partner **Network ID**; refer to Reference A, Table 8-2 on page 8-39
- enter the partner **LU name**
- enter the partner **Alias**
- uncheck the **Partner LU is dependent** checkbox
- enter an optional comment to describe the partner connection

Select and press the **Add** push-button.

Select and press the **OK** push-button.

The Connection to a Host screen displays. Refer to Figure 8-87 on page 8-80.


Connection to a Host

Link name: HOST0001

☐ Activate at startup

Local PU name: LNN

☑ APPN support

Node ID (hex): 05D 00000

LAN destination address (hex): 400000000000

Address format: Token Ring

Remote SAP (hex): 04

Adjacent node ID (hex):

Partner network ID: NETID

Partner node name: PNN (Required for partner LU definition)

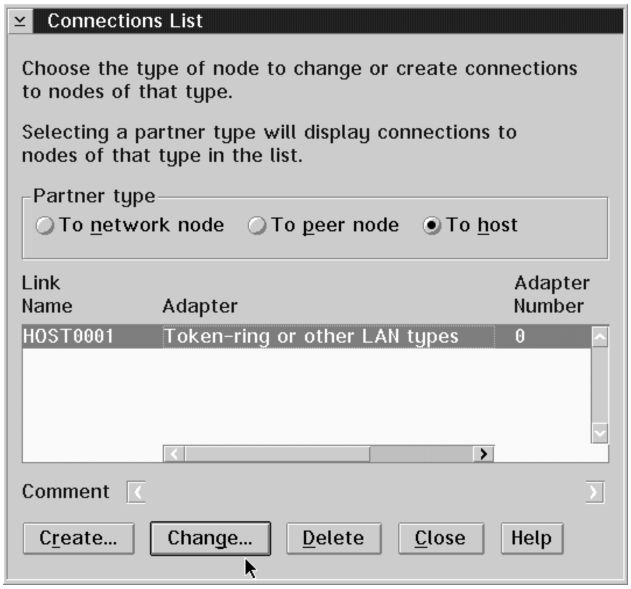
☑ Use this host connection as your focal point support

Optional comment:

Figure 8-87 Connection to a Host

m. Select and press the **OK** push-button.

The Connection List screen is displayed. See Figure 8-88.


Connections List

Choose the type of node to change or create connections to nodes of that type.

Selecting a partner type will display connections to nodes of that type in the list.

Partner type

○ To network node ○ To peer node ● To host

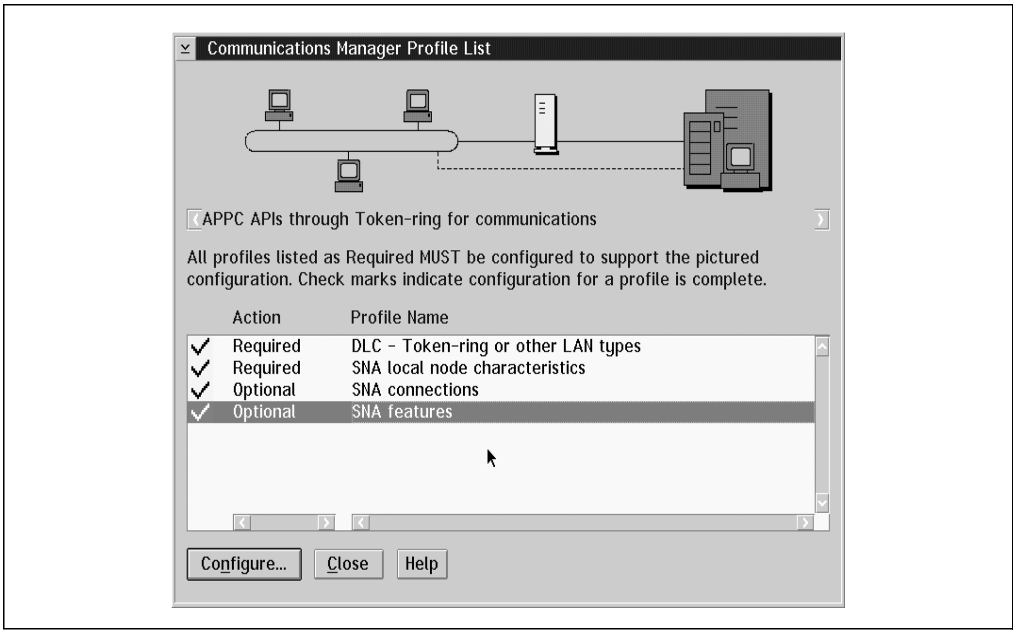
Link Name	Adapter	Adapter Number
HOST0001	Token-ring or other LAN types	0

Comment

Figure 8-88 Connection List

n. Select and press the **Close** push-button.

The Communication Manager Profile List appears. See Figure 8-89.



APPC APIs through Token-ring for communications

All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

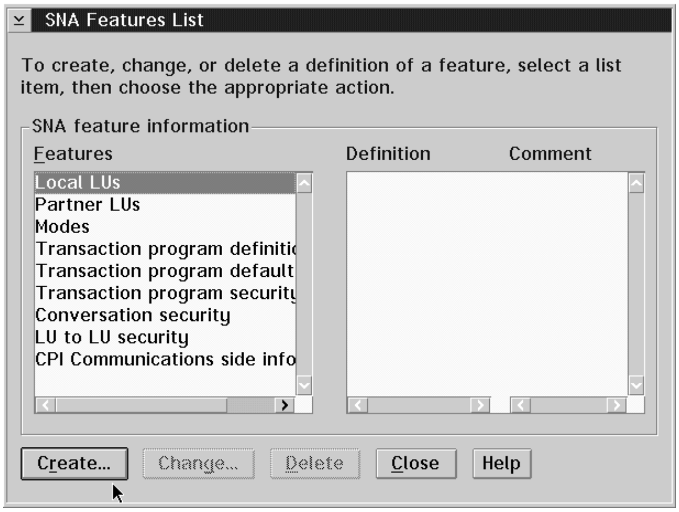
	Action	Profile Name
✓	Required	DLC - Token-ring or other LAN types
✓	Required	SNA local node characteristics
✓	Optional	SNA connections
✓	Optional	SNA features

Figure 8-89 Communications Manager Profile List

o. Select and highlight the **SNA features** profile name.

Select and press the **Configure...** push-button.

The SNA Features List screen displays. Refer to Figure 8-90 on page 8-82.


SNA Features List

To create, change, or delete a definition of a feature, select a list item, then choose the appropriate action.

SNA feature information

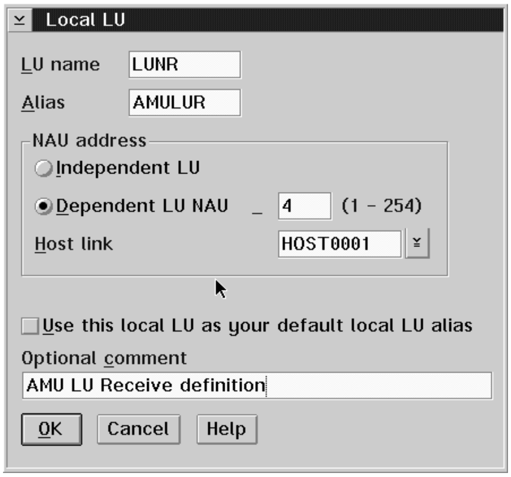
Features	Definition	Comment
Local LUs		
Partner LUs		
Modes		
Transaction program definiti		
Transaction program default		
Transaction program securit		
Conversation security		
LU to LU security		
CPI Communications side info		

Figure 8-90 SNA Features List

p. Select and highlight **Local LUs** in the Features selection list.

Select and press the **Create...** push-button.

The Local LU screen is displayed. See Figure 8-91 for both single and parallel session configuration.


Local LU

LU name: LUNR

Alias: AMULUR

NAU address

○ Independent LU

● Dependent LU NAU: 4 (1 - 254)

Host link: HOST0001

☐ Use this local LU as your default local LU alias

Optional comment: AMU LU Receive definition

Figure 8-91 Local LU

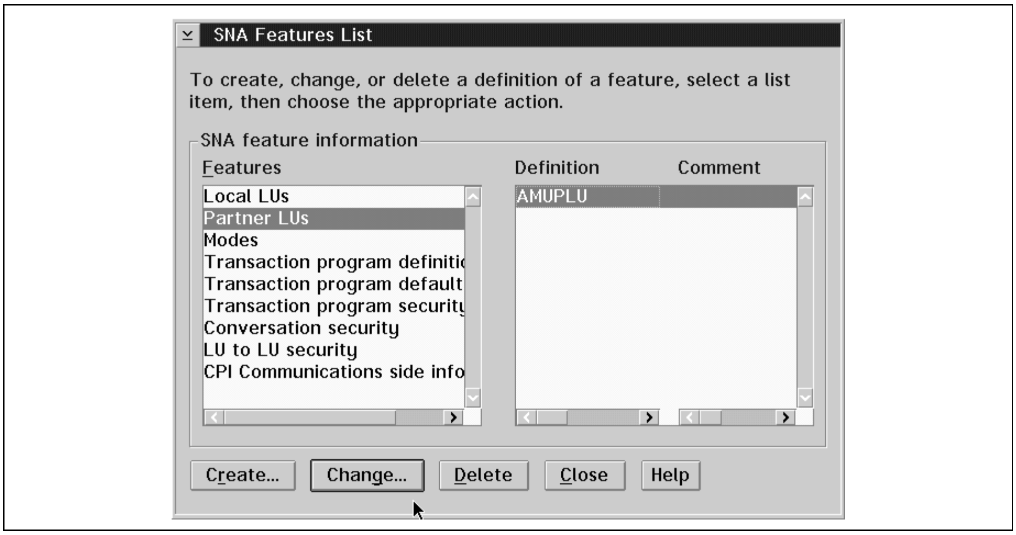
q. Before configuring the Local LU window, determine whether to configure a a single session or parallel session.

For a single session configuration:

- enter the **LU name**; refer to Reference 6, Table 8-3 on page 8-40
- enter the **Alias** name
- check the **Dependent LU NAU** button and enter a value of **4** in the associated entry field; Refer to Reference 8, Table 8-3 on page 8-40
- select the previously configured **Host link** selection
- uncheck the **Use this local LU as your default local LU alias** checkbox
- enter an optional comment to describe the single session logical unit

Select and press the **OK** push-button.

The SNA Features List appears. See Figure 8-92.



To create, change, or delete a definition of a feature, select a list item, then choose the appropriate action.

Features:
- Local LUs
- Partner LUs
- Modes
- Transaction program definitic
- Transaction program default
- Transaction program security
- Conversation security
- LU to LU security
- CPI Communications side info

Definition: AMUPLU

Figure 8-92 SNA Features List

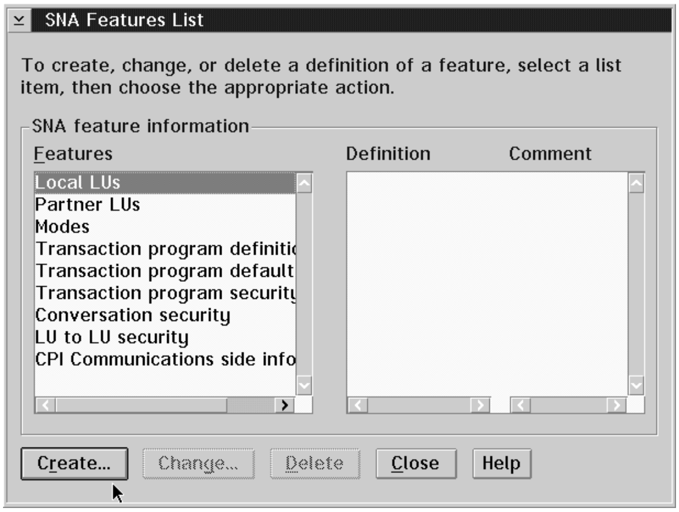
Select and highlight **Local LUs** in the Features selection list.

Select and press the **Create...** push-button to define the second LU:

- enter the **LU name**; refer to Reference 7, Table 8-3 on page 8-40
- enter the **Alias** name
- check the **Dependent LU NAU** button and enter a value of **5** in the associated entry field; refer to Reference 9, Table 8-3 on page 8-40
- select the previously configured **Host link** selection
- uncheck the **Use this local LU as your default local LU alias** checkbox
- enter an optional comment to describe the single session logical unit

Select and press the **OK** push-button.

The SNA Features List screen appears. See Figure 8-93.



To create, change, or delete a definition of a feature, select a list item, then choose the appropriate action.

Figure 8-93 SNA Features List

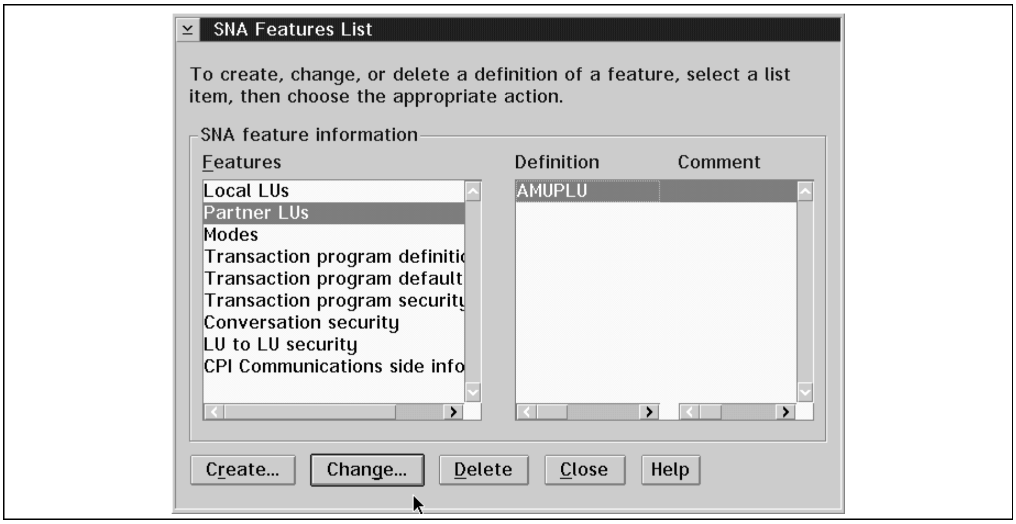
— or —

For a parallel session configuration:

- enter the **LU name**; refer to Table 8-4 on page 8-41
- enter the **Alias** name; refer to Table 8-4 on page 8-41
- check the **Independent LU** button
- uncheck the **Use this local LU as your default local LU alias** checkbox
- enter an optional comment to describe the parallel session logical unit

Select and press the **OK** push-button.

The SNA Features List appears. See Figure 8-94.


SNA Features List

To create, change, or delete a definition of a feature, select a list item, then choose the appropriate action.

SNA feature information

Features
Local LUs
Partner LUs
Modes
Transaction program definiti
Transaction program default
Transaction program security
Conversation security
LU to LU security
CPI Communications side info

Definition	Comment
AMUPLU	

Figure 8-94 SNA Features List

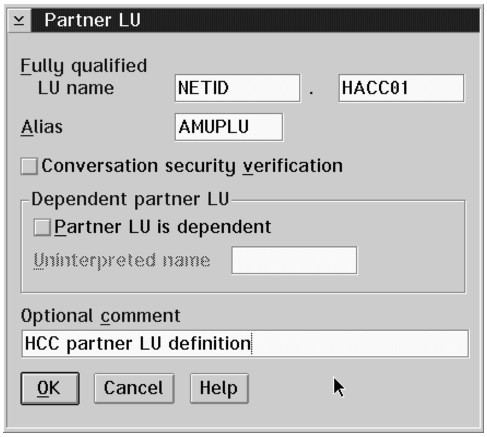
r. Select and highlight the **Partner LUs** selection.

If a Partner LU definition exists, select and highlight the definition. Select and press the **Change...** push-button.

— or —

If a definition does not exist, select and press the **Create...** push-button.

The Partner LU screen appears. See Figure 8-95.



Fully qualified LU name: NETID . HACC01

Alias: AMUPLU

☐ Conversation security verification

Dependent partner LU

☐ Partner LU is dependent

Uninterpreted name:

Optional comment: HCC partner LU definition

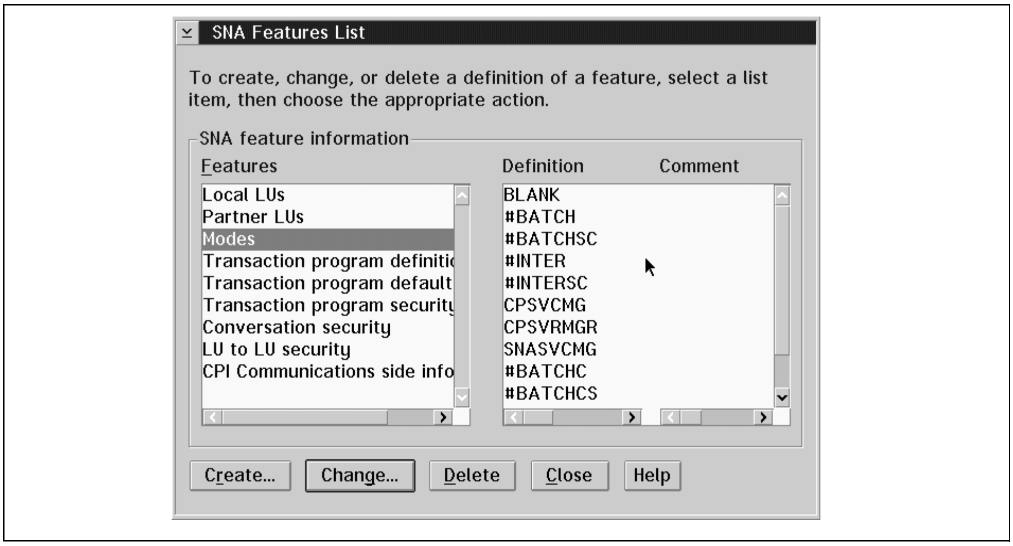
Figure 8-95 Partner LU

s. In the Partner LU window:

- enter the **Fully qualified LU name**, consisting of the network id; refer to Reference A, Table 8-2 on page 8-39 and the partner LU name; refer to Reference 2, Table 8-3 on page 8-40
- enter the partner **Alias** name
- uncheck the **Conversation security verification** checkbox
- uncheck the **Partner LU is dependent** checkbox
- enter an optional comment to describe the partner LU

Select and press the **OK** push-button.

The SNA Features List appears. Refer to Figure 8-96 on page 8-87.



SNA Features List

To create, change, or delete a definition of a feature, select a list item, then choose the appropriate action.

Figure 8-96 SNA Features List

t. In the SNA Features List window, select and highlight the **Modes** selection. Determine whether to configure a single or parallel APPC connections.

For a single session:

View the **Definition** selection list to determine the existence of the definition *OBISL62S*; refer to Reference 5, Table 8-3 on page 8-40.

- If it exists, select and highlight the definition. Select and press the **Change...** push-button.

— or —

- If it does not exist, select and press the **Create...** push-button.

For a parallel session:

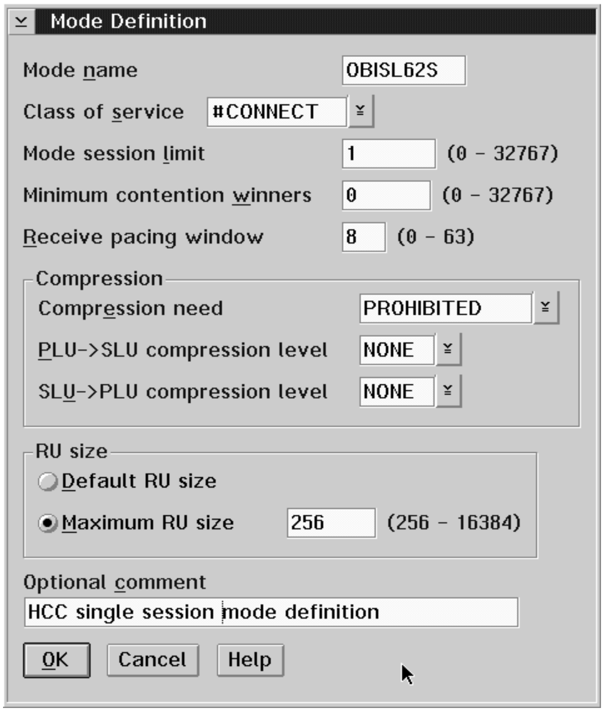
View the **Definition** selection list to determine the existence of the whether the definition ***OBISL62P***; refer to Reference 10, Table 8-3 on page 8-40.

- If it exists, select and highlight the definition. Select and press the **Change...** push-button.

— or —

- If it does not exist, select and press the **Create...** push-button.

The Mode Definition screen displays. See Figure 8-97.



Mode name: OBISL62S
Class of service: #CONNECT
Mode session limit: 1 (0 - 32767)
Minimum contention winners: 0 (0 - 32767)
Receive pacing window: 8 (0 - 63)

Compression
Compression need: PROHIBITED
PLU->SLU compression level: NONE
SLU->PLU compression level: NONE

RU size
○ Default RU size
● Maximum RU size: 256 (256 - 16384)

Optional comment: HCC single session mode definition

Figure 8-97 Mode Definition

u. In the **Mode Definition** window, enter the following parameters depending on the single session or parallel session configuration:

For a single session:

- enter the definition of OBISL62S in the **Mode name** entry field; refer to Reference 5, Table 8-3 on page 8-40
- select the #CONNECT selection as the **Class of Service**
- enter 1 for the **Mode session limit**
- enter 0 in the **Minimum contention winners** entry field
- enter 8 in the **Receive pacing window** entry field
- disable any compression need and compression level
- check the **Maximum RU size** button and enter a size of **256** in the associated entry field
- enter an optional comment to describe this transaction program

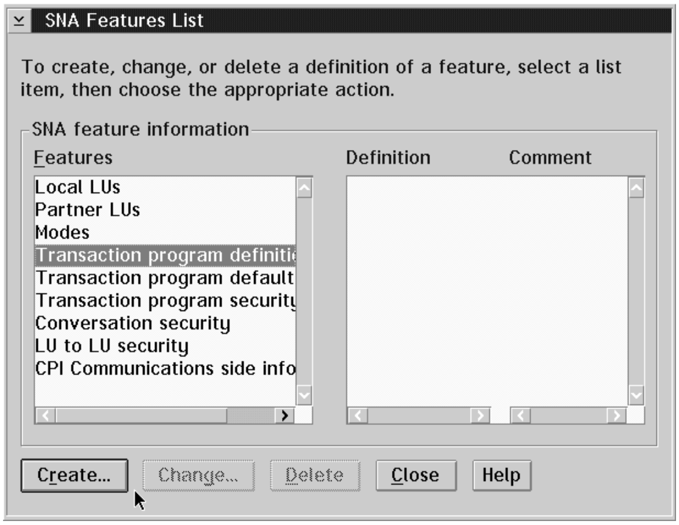
Select and press the **OK** push-button.

For a parallel session:

- enter the definition of OBISL62P in the **Mode name** entry field; refer to Reference 10, Table 8-3 on page 8-40
- select the #CONNECT selection as the **Class of Service**
- enter 3 for the **Mode session limit**
- enter 1 in the **Minimum contention winners** entry field
- enter 8 in the **Receive pacing window** entry field
- disable any compression need and compression level
- check the **Maximum RU size** button and enter a size of **256** in the associated entry field
- enter an optional comment to describe this transaction program

Select and press the **OK** push-button.

The SNA Features List is displayed. See Figure 8-98.



SNA Features List

To create, change, or delete a definition of a feature, select a list item, then choose the appropriate action.

SNA feature information

Features

- Local LUs
- Partner LUs
- Modes
- Transaction program definiti
- Transaction program default
- Transaction program security
- Conversation security
- LU to LU security
- CPI Communications side info

Figure 8-98 SNA Features List

v. Select and highlight **Transaction program definition** in the Features selection list.

Configure transaction programs for send and receive operations:

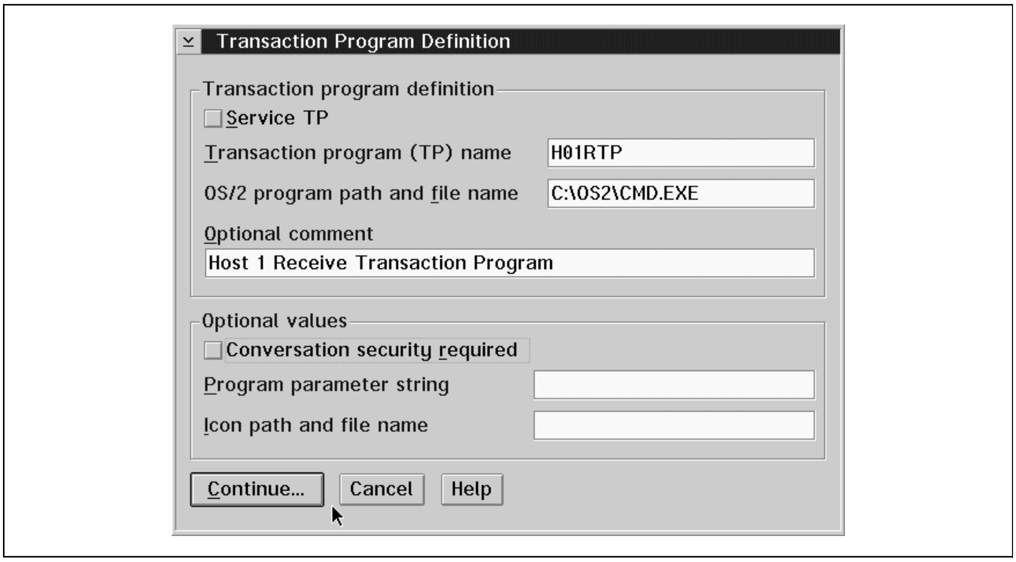
Verify the existence of the transaction program definitions ***H01RTP*** and ***H01STP***; refer to Reference 12 and 13, Table 8-3 on page 8-40.

- If the definitions do not exist, select and press the **Create...** push-button.

— or —

- If the definitions do exist, select and highlight ***H01RTP*** or ***H01STP*** and then select and press the **Change...** push-button.

The Transaction Program Definition screen appears. Refer to Figure 8-99 on page 8-91.



Transaction program definition

☐ Service TP

Transaction program (TP) name: H01RTP

OS/2 program path and file name: C:\OS2\CMD.EXE

Optional comment: Host 1 Receive Transaction Program

Optional values

☐ Conversation security required

Program parameter string:

Icon path and file name:

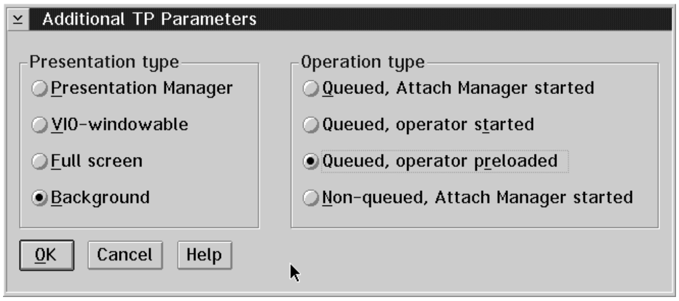
Figure 8-99 Transaction Program Definition

w. In the Transaction Program Definition window:

- uncheck the **Service TP** checkbox
- enter ***H01STP (H01RTP)*** in the Transaction program (TP) name
- enter `C:\OS2\CMD.EXE` in the OS/2 program path and file name
- enter an optional comment to describe the send (receive) transaction program
- uncheck the **Conversation security required** checkbox
- erase any **Program parameter string** and **Icon path and file name**

Select and press the **Continue...** push-button.

The Additional TP Parameters screen is displayed. Refer to Figure 8-100 on page 8-92.



Additional TP Parameters

Presentation type

○ Presentation Manager
○ VIO-windowable
○ Full screen
● Background

Operation type

○ Queued, Attach Manager started
○ Queued, operator started
● Queued, operator preloaded
○ Non-queued, Attach Manager started

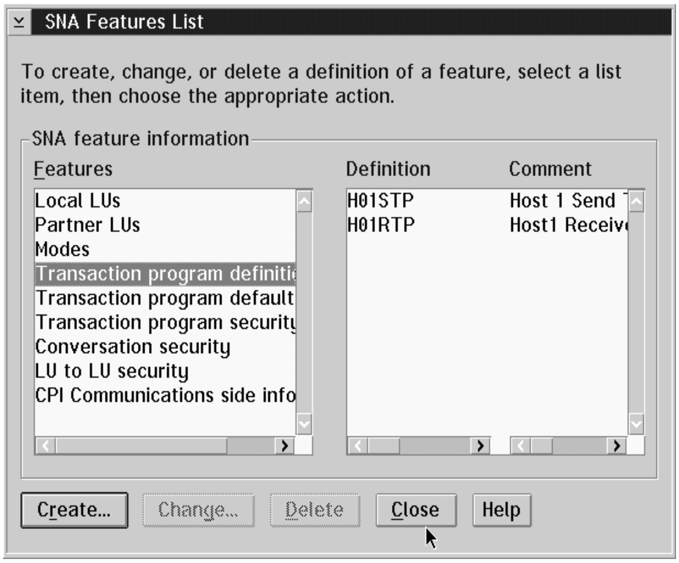
Figure 8-100 Additional TP Parameters

x. In the Additional TP Parameters window:

- check the **Background** button in the presentation type
- check the **Queued, operator preloaded** button in the operation type

Select and press the **OK** push-button.

The SNA Features List screen appears. See Figure 8-101.



SNA Features List

To create, change, or delete a definition of a feature, select a list item, then choose the appropriate action.

SNA feature information

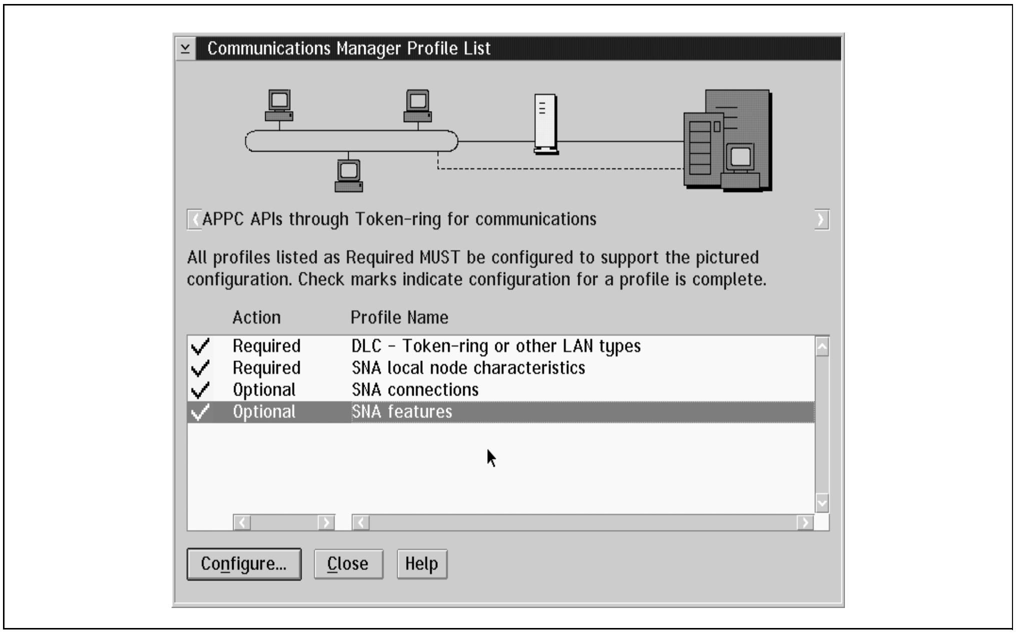
Features	Definition	Comment
Local LUs	H01STP	Host 1 Send
Partner LUs	H01RTP	Host1 Receiv
Modes		
Transaction program definiti		
Transaction program default		
Transaction program securit		
Conversation security		
LU to LU security		
CPI Communications side info		

Figure 8-101 SNA Features List

y. Repeat Step v, Step w, and Step x to configure the second send (receive) transaction program.

z. In the **SNA Features List**, select and press the **Close...** push-button.

The Communication Manager Profile List is displayed. See Figure 8-102.



Communications Manager Profile List

APPC APIs through Token-ring for communications

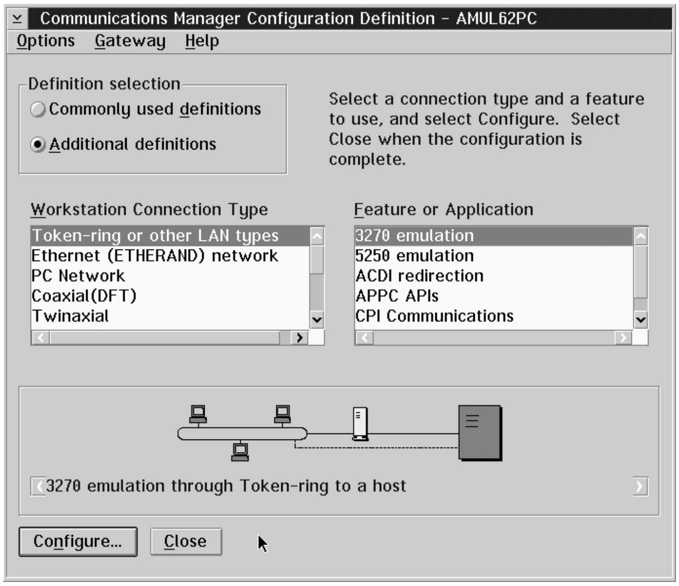
All profiles listed as Required MUST be configured to support the pictured configuration. Check marks indicate configuration for a profile is complete.

	Action	Profile Name
✓	Required	DLC - Token-ring or other LAN types
✓	Required	SNA local node characteristics
✓	Optional	SNA connections
✓	Optional	SNA features

Figure 8-102 Communications Manager Profile List

Step 12 Select and press the **Close...** push-button.

The Communication Manager Configuration Definition screen displays. Refer to Figure 8-103 on page 8-94.



Communications Manager Configuration Definition - AMUL62PC

Definition selection
○ Commonly used definitions
● Additional definitions

Select a connection type and a feature to use, and select Configure. Select Close when the configuration is complete.

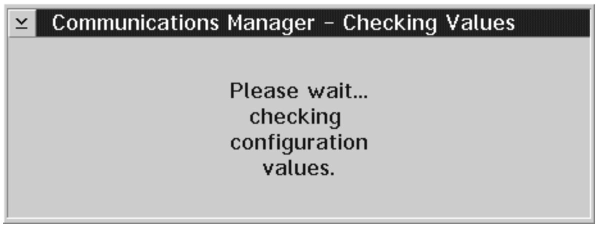
Workstation Connection Type	Feature or Application
Token-ring or other LAN types	3270 emulation
Ethernet (ETHERAND) network	5250 emulation
PC Network	ACDI redirection
Coaxial(DFT)	APPC APIs
Twinaxial	CPI Communications

3270 emulation through Token-ring to a host

Figure 8-103 Communication Manager Configuration Definition

Step 13 Select and press the **Close...** push-button.

The Communication Manager Checking values screen appears while verification proceeds. See Figure 8-104.

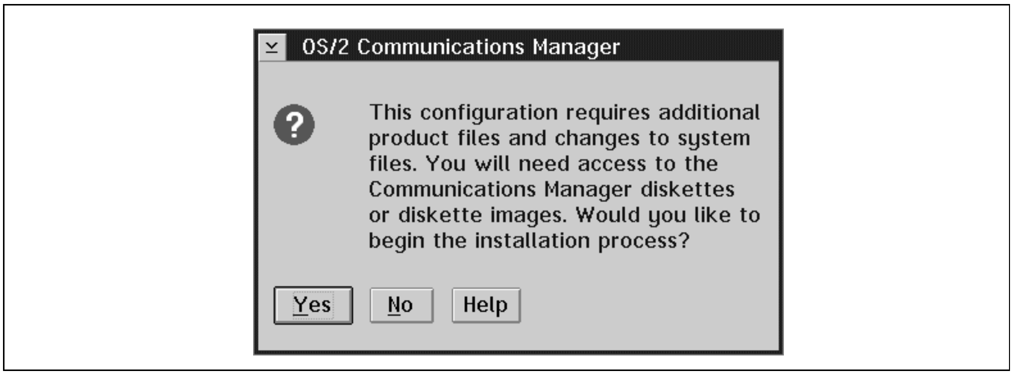


Communications Manager - Checking Values

Please wait...
checking
configuration
values.

Figure 8-104 Communications Manager - Checking Values

After verification, the OS/2 Communication Manager screen displays. Refer to Figure 8-105 on page 8-95.



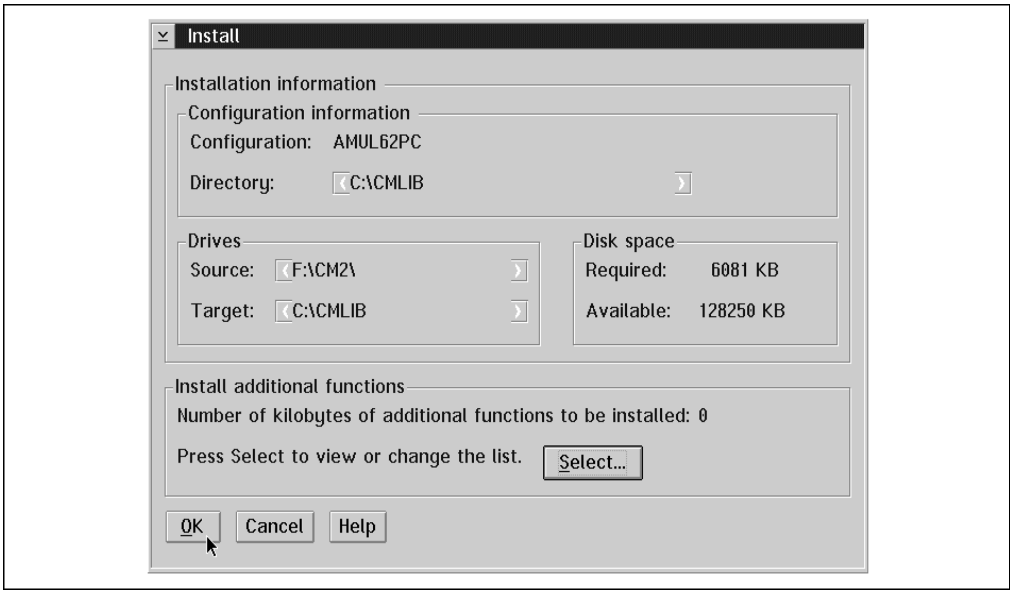
OS/2 Communications Manager

This configuration requires additional product files and changes to system files. You will need access to the Communications Manager diskettes or diskette images. Would you like to begin the installation process?

Figure 8-105 OS/2 Communications Manager

Step 14 Select and press the **Yes** push-button.

The Install screen is displayed. See Figure 8-106.



Install

Installation information

Configuration information

Configuration: AMUL62PC

Directory: C:\CMLIB

Drives

Source: F:\CM2\

Target: C:\CMLIB

Disk space

Required: 6081 KB

Available: 128250 KB

Install additional functions

Number of kilobytes of additional functions to be installed: 0

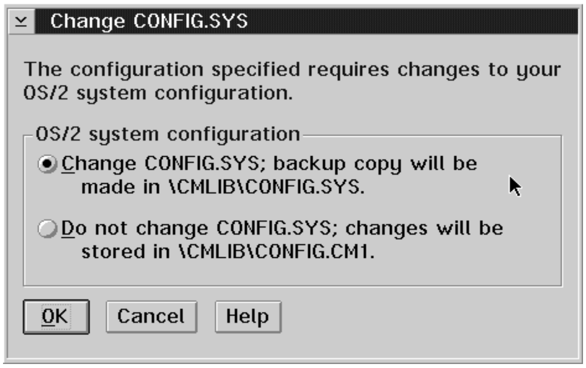
Press Select to view or change the list.

Figure 8-106 Install

Step 15 Accept the installation path.

Select and press the **OK** push-button.

The Change CONFIG.SYS screen is displayed. Refer to Figure 8-107 on page 8-96.



Change CONFIG.SYS

The configuration specified requires changes to your OS/2 system configuration.

OS/2 system configuration

● Change CONFIG.SYS; backup copy will be made in \CMLIB\CONFIG.SYS.

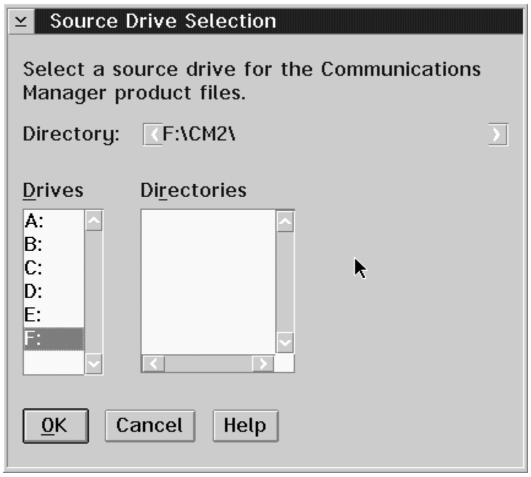
○ Do not change CONFIG.SYS; changes will be stored in \CMLIB\CONFIG.CM1.

Figure 8-107 Change CONFIG.SYS

Step 16 Check the **Change CONFIG.SYS; backup copy will be made in \CMLIB\CONFIG.SYS** button.

Select and press the **OK** push-button.

The Source Drive Selection screen appears. See Figure 8-108.



Source Drive Selection

Select a source drive for the Communications Manager product files.

Directory: F:\CM2\

Drives: A: B: C: D: E: F:

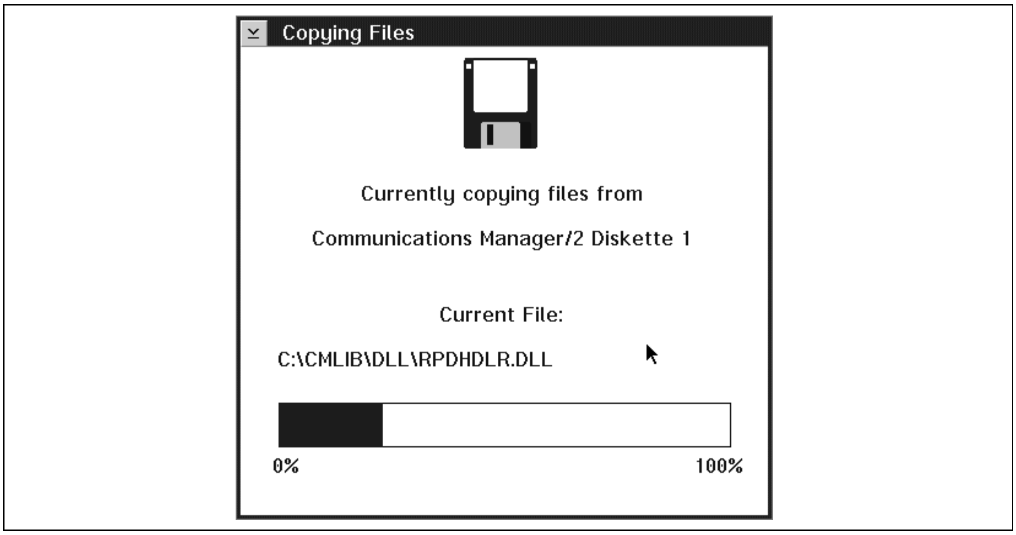
Directories

Figure 8-108 Source Drive Selection

Step 17 Select the installation source drive and source path.

Select and press the **OK** push-button.

The Copying Files screen displays. See Figure 8-109.



Currently copying files from

Communications Manager/2 Diskette 1

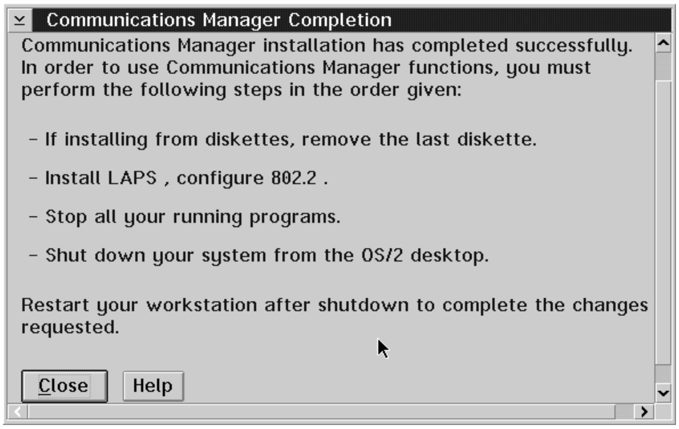
Current File:

C:\CMLIB\DLL\RPDHDLR.DLL

Figure 8-109 Copying Files

Step 18 If installing from diskettes, remove and insert diskettes as prompted.

After the file copy completes, the Communications Manager Completion screen appears. See Figure 8-110.



Communications Manager installation has completed successfully. In order to use Communications Manager functions, you must perform the following steps in the order given:

- If installing from diskettes, remove the last diskette.
- Install LAPS , configure 802.2 .
- Stop all your running programs.
- Shut down your system from the OS/2 desktop.

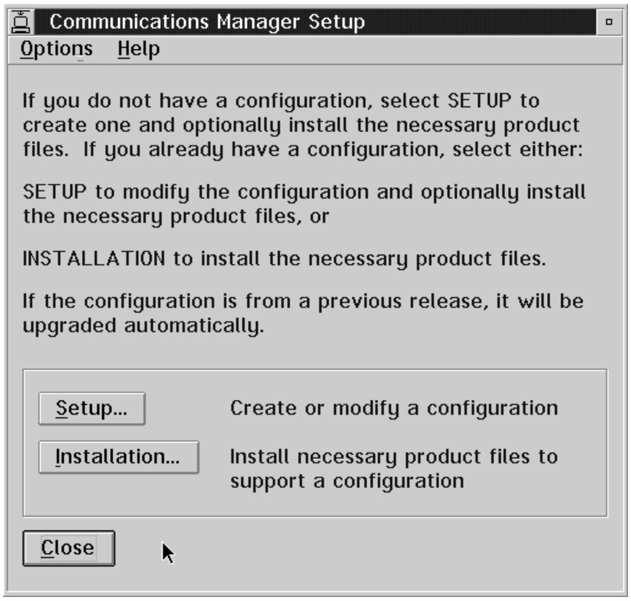
Restart your workstation after shutdown to complete the changes requested.

Figure 8-110 Communications Manager Completion

Step 19 Observe the instructions to shut down and boot the AMU controller.

Select and press the **Close...** push-button.

The Communication Manager Setup screen displays. See Figure 8-111.



If you do not have a configuration, select SETUP to create one and optionally install the necessary product files. If you already have a configuration, select either:

SETUP to modify the configuration and optionally install the necessary product files, or

INSTALLATION to install the necessary product files.

If the configuration is from a previous release, it will be upgraded automatically.

Setup...	Create or modify a configuration
Installation...	Install necessary product files to support a configuration

Figure 8-111 Communications Manager Setup

Step 20 Select and press the **Close** push-button.

This completes the configuration of Communications Manager/2.

KopyKat Configuration

The KopyKat configuration description requires that KopyKat is installed, and the AMU controller is booted to assure that all CONFIG.SYS changes are in effect.

The configuration description shows:

- the COM port definition
- the modem specification

The following steps detail the configuration.

Step 1 Select and double-click the **KopyKat** icon on the Desktop.

The KopyKat - Icon View screen appears. See Figure 8-112.

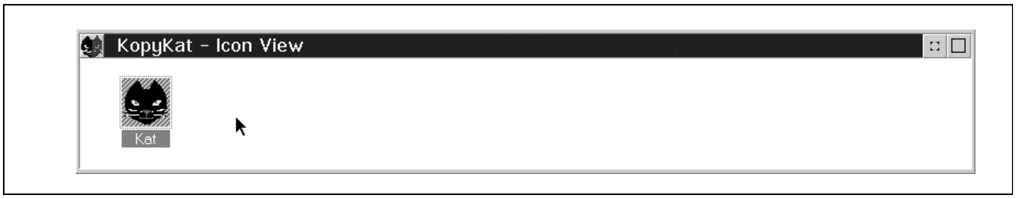
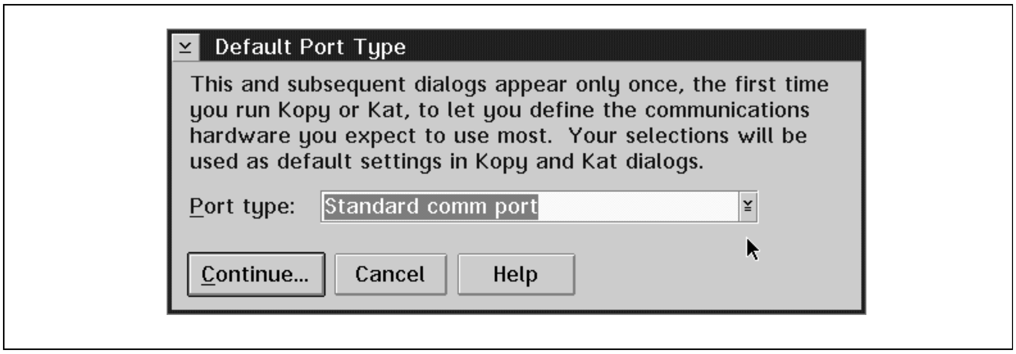


Figure 8-112 KopyKat - Icon View

Step 2 Select and double-click the **Kat** icon.

The Default Port Type screen displays. See Figure 8-113.



Default Port Type

This and subsequent dialogs appear only once, the first time you run Kopy or Kat, to let you define the communications hardware you expect to use most. Your selections will be used as default settings in Kopy and Kat dialogs.

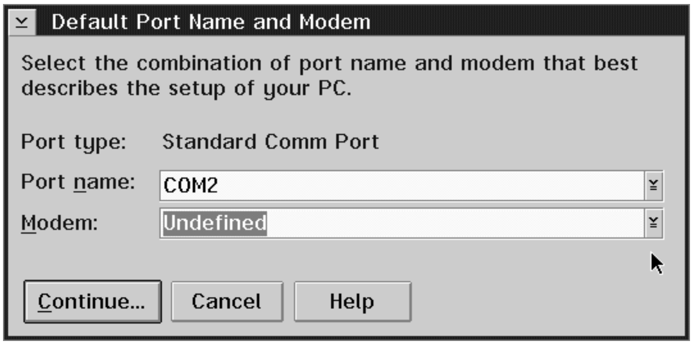
Port type: Standard comm port

Figure 8-113 Default Port Type

Step 3 Select the **Standard comm port** selection.

Select and press the **Continue...** push-button.

The Default Port Name and Modem screen is displayed. See Figure 8-114.



Default Port Name and Modem

Select the combination of port name and modem that best describes the setup of your PC.

Port type: Standard Comm Port

Port name: COM2

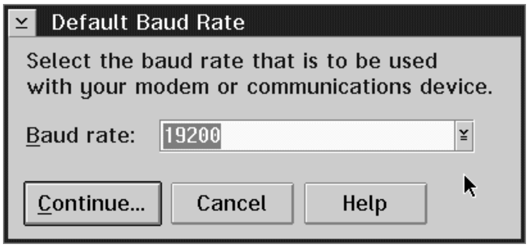
Modem: Undefined

Figure 8-114 Default Port Name and Modem

Step 4 Select the appropriate COM port and modem type in the **Port name** and **Modem** selection lists.

Select and press the **Continue...** push-button.

The Default Baud Rate screen appears. See Figure 8-115.



Default Baud Rate

Select the baud rate that is to be used with your modem or communications device.

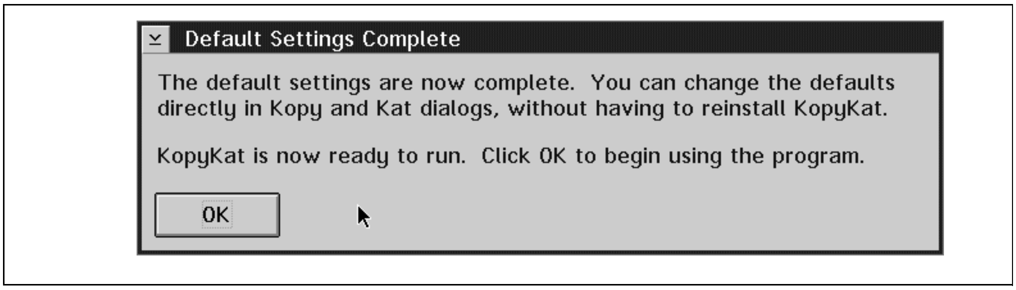
Baud rate: 19200

Figure 8-115 Default Baud Rate

Step 5 Select the **Baud rate** selection that will be used with the installed modem device (use 9600 or smaller).

Select and press the **Continue...** push-button.

The Default Settings Complete screen displays. Refer to Figure 8-116 on page 8-101.


Default Settings Complete

The default settings are now complete. You can change the defaults directly in Kopy and Kat dialogs, without having to reinstall KopyKat.

KopyKat is now ready to run. Click OK to begin using the program.

Figure 8-116 Default Settings Complete

Step 6 The Default Settings Complete window indicates that the configuration of KopyKat is now complete. KopyKat is ready to start.

Select and press the **OK** push-button.

The KopyKat - Icon View screen is displayed. See Figure 8-117.

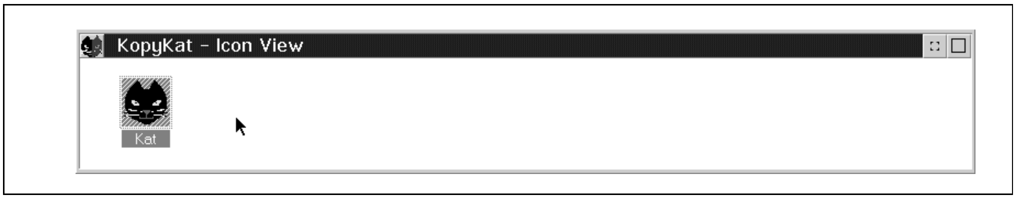


Figure 8-117 KopyKat - Icon View

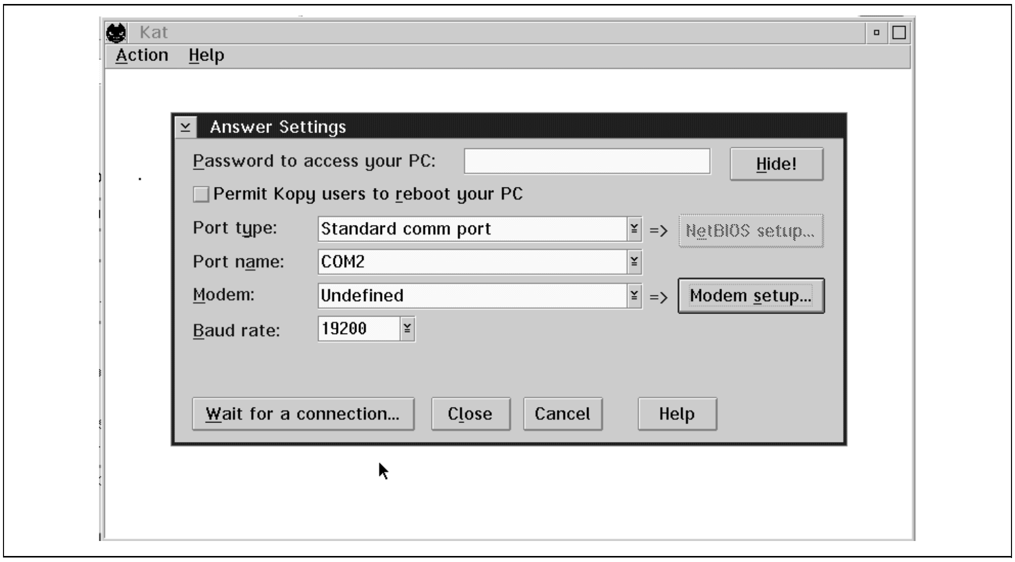
Step 7 To start KopyKat:

a. Select and double-click the **Kat** icon.

The Answer Settings screen appears. Refer to Figure 8-118 on page 8-102.

Step 8 Add following line for autostart in the file STARTUP.CMD:

```
C:\KOPYKAT\KAT /a
```



Password to access your PC:

☐ Permit Kopy users to reboot your PC

Port type: Standard comm port =>

Port name: COM2

Modem: Undefined =>

Baud rate: 19200

Figure 8-118 Answer Settings

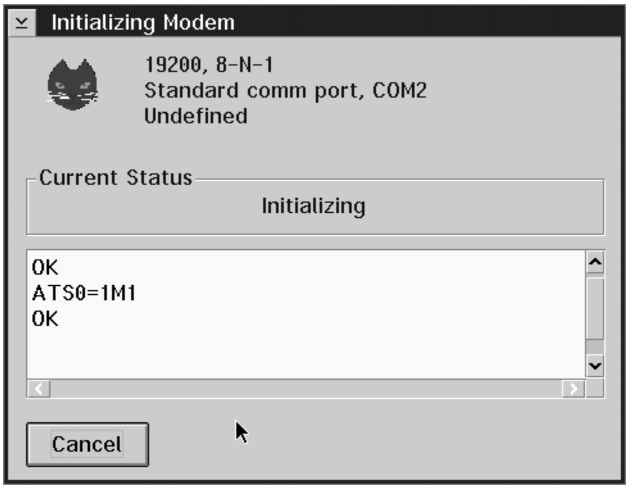
b. In the Answer Settings window:

Note
The AMU controller does not need to be password protected and this entry field may remain blank.

- if the AMU controller should be accessed only with password protection, type a **password** in the Password to access your controller entry field
- uncheck the **Permit Kopy users to reboot your PC** checkbox
- select the **Standard comm port** selection in the Port type selection list
- select the appropriate **port** in the Port name selection list
- select the appropriate modem **device** in the Modem selection list (for BOCA modem select Hayes Smartmodem 2400)
- Enter in Modem setup and check the Initialization string:
  target PC: ATEV!Q0S0=S11=55&C1&D2
  control PC:
  AT&F0X3F(8.6.5)&C1&D0&K0&Q0
- select the appropriate **baud rate** in the Baud rate selection list (9600 or smaller)

Select and press the **Wait for a connection...** push-button.

The Initializing Modem screen displays. Refer to Figure 8-119 on page 8-103.



19200, 8-N-1
Standard comm port, COM2
Undefined

Current Status
Initializing

```
OK
ATS0=1M1
OK
```

Figure 8-119 Initializing Modem

KopyKat initializes the modem and waits for a remote connection. The window closes and KopyKat executes in the background.

c. To stop answering or to start Kat again, select and double-click the **Kat** icon and display the **Action** menu. See Figure 8-120.

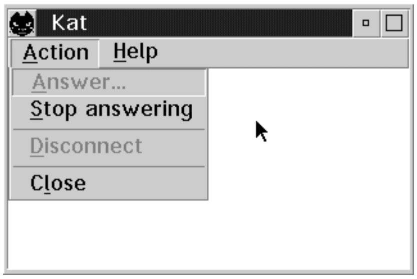


Figure 8-120 Kat

d. Select the appropriate operation.

The KopyKat configuration is now complete.

DCAF Configuration

The DCAF software installation included any DCAF configuration. Since DCAF requires a Communications Manager asynchronous ACDI configuration for the installed and connected modem, ensure that Communications Manager/2 is configured accordingly.

The following steps describe how the DCAF target software is manually started to allow remote access to the AMU controller.

Step 1 Select and double-click the **Distributed Console Access Facility** icon on the OS/2 Desktop.

The Distributed Console Access Facility - Icon view screen appears. See Figure 8-121.

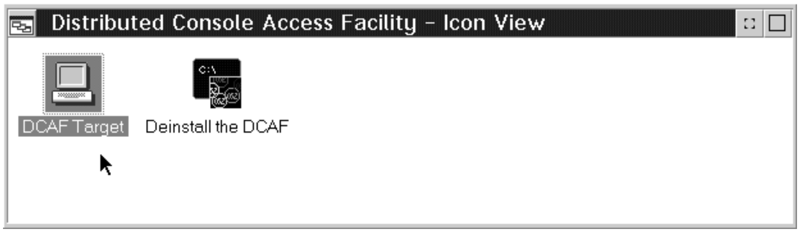
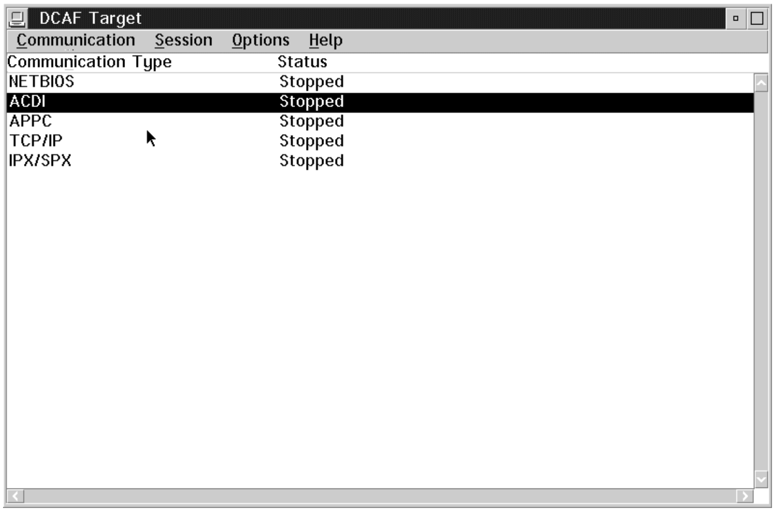


Figure 8-121 DCAF - Icon View

Step 2 Select and double-click the **DCAF Target** icon.

The DCAF Target screen displays. Refer to Figure 8-122 on page 8-105.

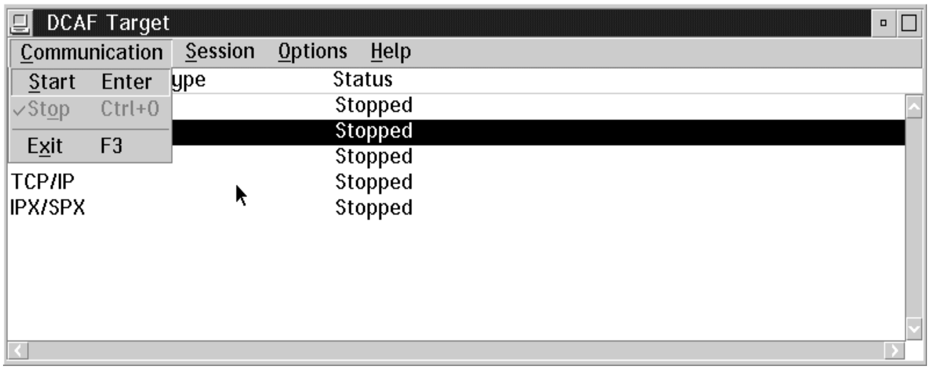


Communication Type	Status
NETBIOS	Stopped
ACDI	Stopped
APPC	Stopped
TCP/IP	Stopped
IPX/SPX	Stopped

Figure 8-122 DCAF Target

Step 3 Select and highlight the **ACDI** communication type.

The DCAF Target screen displays. See Figure 8-123.



ype	Status
	Stopped
	Stopped
	Stopped
TCP/IP	Stopped
IPX/SPX	Stopped

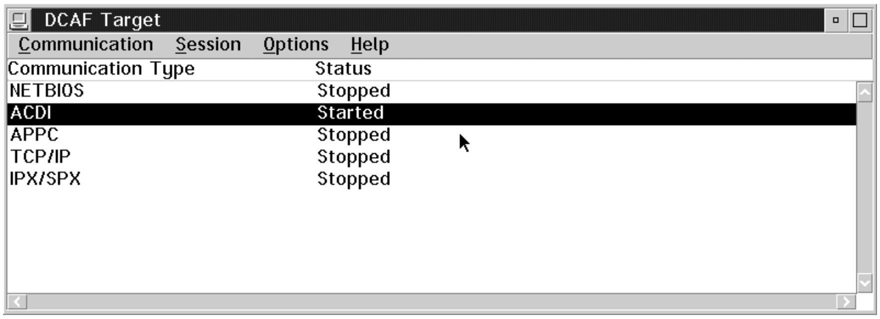
Figure 8-123 DCAF Target

Step 4 Select and click on the **Communication** action bar menu.

Select the **Start** menu selection and press **ENTER**.

The DCAF connection to the AMU controller is started. Initiation of remote access via the installed modem is possible.

The DCAF Target screen appears. See Figure 8-124.



Communication Type	Status
NETBIOS	Stopped
ACDI	Started
APPC	Stopped
TCP/IP	Stopped
IPX/SPX	Stopped

Figure 8-124 DCAF Target

The DCAF configuration and startup operation is now complete.

AMS Configuration

The archive management software configuration procedure is detailed in the
document number *DOC E00 005 AMU Reference Guide*.

DAS Configuration

OS/2 DAS (Distributed AML Server) software is distributed with the AMU AMS software. Installation of the DAS software may be performed automatically with the AMS installation program, or manually by copying the DAS software onto the AMU controller's hard disk.

Details regarding installation and configuration can be found in the document number *600604 AML/S Maintenance Guide*.

Dual AMU Configuration

The following section assumes that the primary and dual AMU controller are installed identically. The assumption is that all installed adapter cards and all necessary support software is installed and configured. The AMU archive management software is installed on both controllers but the AMU configuration is not performed.

Follow the steps below to configure the main and dual AMU controller.

Step 1 Determine which computer will be the AMU(A) (main controller), and which one will be AMU(B) (dual controller).

Step 2 On the main AMU(A), perform the following steps:

a. Select an OS/2 window and change to the `C:\AMU` directory.

b. Edit the file *LOCAL.AMU* and enter a single string: **A01**.

c. Configure the AMU archive management software to reflect the AML type and host connection.

d. Add a second AMU controller icon in the configuration window.

e. Double-click the second AMU icon and modify the AMU configuration:

- Select and mark the **Other AMU** button.
- Enter **A01** in the Externname entry field.
- Select and press the **OK** push-button.

f. Connect the 2 AMUs in both directions:

- connect the appropriate communication type from AMU(A) (A01) to AMU(B) (A02).
- connect the appropriate communication type from AMU(B) (A02) to AMU(A) (A01).

g. Drag and drop the ADS icon into the configuration menu, if you have an Automaical Dataswitch .

h. Configure the communication from A01 to the ADS. COM1 is preferred.

i. Configure the communication from A02 to the ADS. COM1 is preferred.

j. Connect communication lines from both AMU icons and the robot controller icons.

k. Save the configuration

l. Shut down the AMU(A).

Step 3 On the dual AMU(B), perform the following steps:

a. Select an OS/2 window and change to the `C:\AMU` directory.

b. Edit the file *LOCAL.AMU* and enter a single string: **A02**.

c. Prepare a basic configuration of the AMU archive management software containing the two AMU icons and their respective communication paths. This communication path and AMU icon configuration are identical to AMU(A).

d. Shut down the AMU(B).

Step 4 Manually switch the ADS to AMU(A).

Step 5 Boot both AMU controllers.

Step 6 Log on to AMU(A) and make sure the AMU(A) configuration for the attached archive is complete and a database has been created or updated.

Step 7 Select the **BUD Control...** menu from the AMU Services action bar. Select and mark each individual **file transfer** button to send a copy of the following files to the dual AMU controller AMU(B):

- the appropriate robot teach point file(s)
    - *KRNREFPT.???*
- *AMUCONST.INI*
- *AMUCONF.INI*

Select and use the **Start** push-button to transfer each individual file.

Step 8 After all of the files are transmitted to AMU(B), shut down AMU(B). Boot AMU(B) and create a database.

Step 9 Start the host connection:

Send host **ROSA** command (or local **STAT Rx)** to AMU(A). AMU(A) will now become the active AMU.

The dual AMU configuration is now complete.

Preparing for Disaster

The OS/2 User's Guide provides information to recover from Desktop problems and system failures. Additionally, the following section discusses options to save important AMU controller files in case of system failure or Desktop and file corruption.

Desktop failure

The *OS/2 Desktop Preparation* provided steps to save the Desktop settings. The saved settings can be selected by pressing **ALT-F1** when the small white *OS/2* box in the left top display corner appears during controller boot time. A screen displays to offer recovery choices, which include up to 3 recent Desktop archives and the original Desktop archive created when the controller was first loaded.

To recover from a corrupted Desktop, perform the following steps:

Step 1 Boot the controller and press **ALT-F1** when the white OS/2 box appears.

Step 2 Select a previous Desktop archive to continue the boot process.

The system reboots using the set of archived files associated with the archive selection.

The selected Desktop is displayed and recovery is complete. However, the Desktop archive selection selected a previous Desktop, which may not have the current Desktop configuration. It is therefore advisable to have the Desktop saved twice once the controller is loaded with all required software and configuration is completed. This will save the current configuration as a previous Desktop archive.

Perform the following steps when the AMU controller is completely installed and configured, or when changes to the Desktop or *CONFIG.SYS* have been made:

Step 1 Click the right mouse button in an empty Desktop area to display the Desktop menu.

Step 2 Select and click **Settings**.

Step 3 In the *Desktop - Settings* notebook, note the current *Format* option and change to a different setting.

Step 4 Close the *Desktop - Settings* notebook and shut down the controller.

Step 5 Boot the AMU controller and redisplay the *Desktop - Settings* notebook page.

Step 6 Select the *Format* option noted in the step 3) and close the notebook.

Step 7 Shut down the controller and reboot.

The current Desktop settings are restored. If the Desktop gets corrupted, the previous Desktop archive can be restored. The only difference between the current and previous Desktop will be the Desktop's *Format* display, which may be modified easily according to step 3 above.

Saving system and configuration files

When archiving the Desktop, all necessary system files, such as the *CONFIG.SYS* and OS/2 *INI* files, are saved. However, AMU AMS configuration files, Communications Manager configuration files, etc. are not. To save a complete set of system and configuration files, perform the following steps:

Step 1 Create a *C:\AMUSYS* directory.

Step 2 Change to the *AMUSYS* directory and create the following directories:

- OS2
- OS2/INSTALL
- CMLIB
- IBMCOM
- MPTN\ETC
- TCPIP\BIN
- AMU
- DAS
- ROBOT (on twin robot systems robot1 and robot2
- TOWER (or TOWER1, Tower4, Tower7)

Step 3 Copy *C:\CONFIG.SYS* to *C:\AMUSYS*

Step 4 Copy *C:\STARTUP.CMD* to *C:\AMUSYS*

Step 5 attrib **.ini -s*

Step 6 Copy *C:\OS2\*.INI* to *C:\AMUSYS\OS2*

Step 7 Copy *C:\OS2\INSTALL\*.INI* to *C:\AMUSYS\OS2\INSTALL*

Step 8 Copy *C:\CMLIB\*.CFG* to *C:\AMUSYS\CMLIB*

Step 9 Copy *C:\CMLIB\*.CF2* to *C:\AMUSYS\CMLIB*

Step 10 Copy *C:\CMLIB\*.NDF* to *C:\AMUSYS\CMLIB*

Step 11 Copy *C:\CMLIB\*.SEC* to *C:\AMUSYS\CMLIB*

Step 12 Copy *C:\MPTN\ETC\HOSTS* to *C:\AMUSYS\MPTN\ETC*

Step 13 Copy *C:\AMU\*.INI* to *C:\AMUSYS\AMU*

Step 14 Copy *C:\AMU\KRNREFPT.** to *C:\AMUSYS\AMU*

Step 15 Copy *C:\DAS\ETC\CONFIG* to *C:\AMUSYS\DAS*

Step 16 Copy robot configuration files, such as the *KONFIG.DAT* for the AML/2 and AML/E, or the *LAUFWERK.PMC* and *DL.PMC* files to the *C:\AMUSYS\ROBOT* (or related if you have more then one robot or tower) directory

The system and configuration files are now saved in the C:*\AMUSYS* directory. The sub-directories identify the source locations of the saved files. This directory may also be copied to diskette for safe keeping, in case a hard disk failure occurs.

Settings and Backup for Second Harddisk

The ADIC/GRAU controller has 2 IDE hard drisks. This allows the “C” drive to be copied to the second drive using XCOPY. However, to make the second drive bootable one needs remove the first drive and install the second drive as the “C” then install OS/2 warp connect on the drive to create a boot partition. Once the operating system is installed on the drive swap the drive and install it as the “D” drive and boot from the original “C” drive.

Step 1 Configure in the AMU software the path for the database backup in the process configuration `D:\AMU\DBBACKUP`

Step 2 Copy all informations from disk one (C:) to disk two (D:) with the following procedue:

- reboot the AML controller
- press <Alt>+<F1> during the mark with OS2 is in the left top corner on the screeen
- Enter ’C’ in the menu RECOVERY CHOICES (select command line)
- enter the command

```
C:\> xcopy c:\ d:\ /h /o / t /s /e /r /v
```

Step 3 Reboot the AML controller

A

Definitions

Overview

HCC access between the MVS hosts and the AML library by Token-Ring and coaxial connection requires VTAM and HACNET definitions.

MVS HCC Host Definitions

Communication to MVS hosts via Token-Ring and coaxial connections to provide HCC access to the ADIC AML library requires VTAM and HACNET definitions to match the AMU controller Communications Manager/2 configuration definition. Listed parameters match the parameter settings in *Chapter 8*, *Software Configuration*.

VTAM Definitions

The following VTAM definitions list matching parameter configurations of the AMU controller CM/2 configuration. If the default parameter listing requires changes, the AMU CM/2 configuration and AMU AMS configuration may have to be changed accordingly.

LOGMODE 3270 SESSION

```
OBIS3270 MODEENT LOGMODE=OBIS3270,                            *
                 FMPROF=X'03',                                *
                 TSPROF=X'03',                                *
                 PRIPROT=X'B1',                               *
                 SECPROT=X'90',                               *
                 COMPROT=X'3080',                             *
                 SSNDPAC=X'00',                               *
                 SRCVPAC=X'00',                               *
                 RUSIZES=X'87C7',                             *
                 PSNDPAC=X'00',                               *
                 PSERVIC=X'02800000000000000000300'
```

LOGMODE LU 6.2 SINGLE SESSION

```
OBISL62S MODEENT LOGMODE=OBISL62S,                                     *
                 TYPE=0,                                               *
                 FMPROF=X’13’,                                         *
                 TSPROF=X’07’,                                         *
                 PRIPROT=X’B0’,                                        *
                 SECPROT=X’B0’,                                        *
                 COMPROT=X’50B1’,                                      *
                 SSNDPAC=X’00’,                                        *
                 SRCVPAC=X’00’,                                        *
                 RUSIZES=X’8585’,                                      *
                 PSNDPAC=X’00’,                                        *
                 PSERVIC=X’060200000000000000002C00’
```

LOGMODE LU 6.2 PARALLEL SESSION

```
OBISL62P MODEENT LOGMODE=OBISL62P,                                     *
                 TYPE=0,                                               *
                 FMPROF=X’13’,                                         *
                 TSPROF=X’07’,                                         *
                 PRIPROT=X’B0’,                                        *
                 SECPROT=X’B0’,                                        *
                 COMPROT=X’50B1’,                                      *
                 SSNDPAC=X’00’,                                        *
                 SRCVPAC=X’00’,                                        *
                 RUSIZES=X’8585’,                                      *
                 PSNDPAC=X’00’,                                        *
                 PSERVIC=X’060200000000000000002300’
```

USSTAB

STANDARD 3270 USSTAB

RESOURCE DEFINITION HOST LU 6.2

```
OBISACB APPL ACBNAME=OBISACB,                                    *
             APPC=YES,                                           *
             AUTH=(ACQ,NOCNM,NOPASS,NOPO,NOTSO,VPACE),           *
             AUTOSES=0,                                          *
             DLOGMOD=OBISL62x, [x=S | P; (P)arallel, (S)ingle]   *
             DMINWNL=3,                                          *
             DMINWNR=3,                                          *
             DSESLIM=10,                                         *
             MODETAB=XXXXXXXX,                                   *
             PARSESS=YES,                                        *
             PACING=10
```

RESOURCE DEFINITION HOST LU 2

```
OBISACB2 APPL ACBNAME=OBISACB2,                                  *
                      AUTH=(ACQ,BLOCK,PASS)
```

RESOURCE DEFINITION Token Ring/3745

```
OBISSW    VBUIL   TYPE=SWNET,MAXGRP=1,MAXNO=5
OBISAMU   PU      ADDR=XX,PUTYPE=2,                              *
                  IDBLK=05D,IDNUM=A0001,                         *
                  SSCPFM=USSSCS,USSTAB=USSHATS,                  *
                  MODETAB=XXXXXXX,DLOGMOD=OBIS3270
OBISAMU   LU      LOCADDR=0,DLOGMOD=OBISL62P,USSTAB=XXXXX
OBISAMU   LU      LOCADDR=2,USSTAB=XXXXXXXX
OBISAMU   LU      LOCADDR=3,USSTAB=XXXXXXXX
```

RESOURCE DEFINITION Token Ring/3174

```
OBISLOC   VBUIL   TYPE=LOCAL
OBISAM    PU      CUADDR=XXX,                                  *
                  MAXBFRU=16,                                  *
                  MODETAB=XXXXXXXX,                            *
                  DLOGMOD=OBIS3270,                            *
                  USSTAB=XXXXXXXX,                             *
                  VPACING=0,                                   *
                  PACING=0,                                    *
                  SECNET=NO, (=YES: VTAM < 3.4)                *
                  XID=NO,                                      *
                  ISTATUS=ACTIVE
OBISAM    LU      LOCADDR=02
OBISAM    LU      LOCADDR=03
OBISAM    LU      LOCADDR=04, DLGMOD=OBISL62S
OBISAM    LU      LOCADDR=05, DLGMOD=OBISL62S
OBISGWP   PU      CUADDR=YYY,                                  *
                  PUTYPE=2,                                    *
                  MAXBFRU=16,                                  *
                  MODETAB=XXXXXXXX,                            *
                  DLOGMOD=OBIS3270,                            *
                  USSTAB=XXXXXXXX,                             *
                  VPACING=0,                                   *
                  PACING=0,                                    *
                  SECNET=NO,                                   *
                  ISTATUS=ACTIVE
OBISGWL   LU      LOCADDR=02
```

HACCPARM Definitions

The following HACCPARM definitions list matching parameter configurations of the AMU controller CM/2 configuration. If the default parameter listing requires changes, the AMU CM/2 configuration and AMU AMS configuration may have to be changed accordingly.

HACNET STATEMENTS (LU 6.2)

SINGLE SESSION:

HACNET HID=H1, LU=OBISACB, LM=OBISL62S

HACNET HID=A1, LU=OBISAMUR, LU2=OBISAMUS, LM=OBISL62S, TPN=H01RTP

PARALLEL SESSION:

HACNET HID=H1, LU=OBISACB, LM=OBISL62P

HACNET HID=A1, LU=OBISAMUL, LM=OBISL62P, TPN=H01RTP

COMDEF1 STATEMENT (LU 2, EXCP)

LU 2:

COMDEF1=OBISAMU1, OBISACB, VTAM

EXCP:

COMDEF1=cuu1, [ALT=cuu2] [, EXCP].

☞ **Note**

uu1: MVS Unit Address; locval NON-SNA 327x Terminal
cuu2: alternative MVS Unit Address

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